

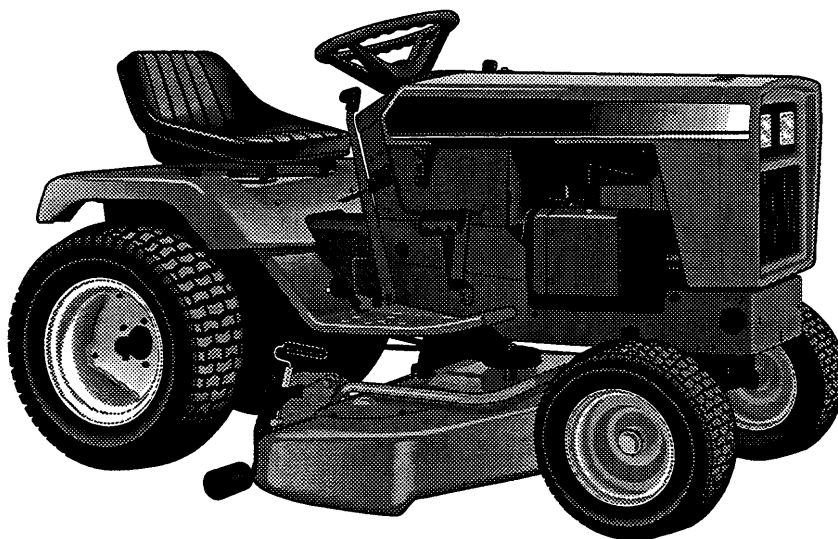
Simplicity[®]



MASSEY FERGUSON
LAWN & GARDEN EQUIPMENT

AGCO ALLIS

Parts Manual



SOVEREIGN / 900 / 2800 SERIES **LAWN TRACTORS & MOWER DECKS**

18HP HYDRO TRACTORS

Mfg. No.	Description
1692143	Sovereign 18HP Hydro
1692144	918H, 18HP Hydro
1692450	Sovereign 18HP Hydro
1692452	918H, 18HP Hydro
1692503	2818H, 18HP Hydro

42" MOWER DECKS

1691218	42" Mower Deck
1691220	42" Mower Deck

48" MOWER DECKS

1691219	48" Mower Deck
1691221	48" Mower Deck

Rev. 12/1994
TP 400-1207-03-SV-SMA

(Includes TP-1209 & TP-1400)



Table of Contents

FRAME & FOOTREST GROUP	4
Frame Assy, Footrests, Shaft Assy., Pedal Assy., Lever Assy.	
FRONT AXLE GROUP	6
Link Assy, Rod Assy., Spindle Assys., Axle Assy.	
STEERING GROUP	8
Steering Wheel, Steering Shaft, Housing Assy., Bevel Gear, Steering Arm Assy.	
ENGINE, EXHAUST & DRIVE SHAFT GROUP	10
Engine, Heat Shield, Fuel Cap, Fuel Tank Assy., Fuel Hose, Choke, Throttle, Drive Shaft Assy., Muffler, Adaptor Plate Assy.	
CLUTCH & BRAKE GROUP	12
Brake Rod, Brake Drum, Rod Guide Assy., Pulley Assy, Idler Lever Assy.	
CLUTCH & BRAKE CONTROL GROUP	14
Drive Pulley, V-Belt, Guard Assy., Clutch Rod, Parking Brake Lever, Rod Assy.	
HYDROSTATIC PUMP GROUP	16
Shroud Deflector, Pulley Fan, Hydrostatic Pump & Motor Unit, Release Latch, Hose, Shroud Assy	
HYDROSTATIC PUMP (Service Parts for Pump for Hydraulic Lift)	18
HYDROSTATIC CONTROL GROUP	22
Shaft Assy., Control Link Assy., Pivot Bracket, Guide Plate, Control Rod Guide, Control Rod Assy., Control Lever Assy., Quadrant	
TRANSMISSION GROUP	24
Seal, Case Assy., Drive Gear, Pinion & Shaft Assy., Gasket, Axle Tube Assy., Cover Assy., Gear	
PTO CONTROL GROUP	26
Tension Rod, Handle Assy., Pulley Assy., Interlock Switch, Clutch Handle, Lever, Control Rod Assy., Idler Pulley	
PTO CONE CLUTCH GROUP	28
Disc Brake, Pivot Assy., Bearing Assy., Pulley, Clutch Plate Assy., Pivot Arm Assy.	
HYDRAULIC LIFT GROUP	30
CONTROL VALVE GROUP	32
BEVEL GEAR & SIDE PLATE GROUP	34
Side Plate Assys., Seal Repair Kit, Gasket, Cover, Drive Shaft, Bevel Gear, Plug Assy., Bevel Gear Housing	
DRAW BAR GROUP	36
Upright Bar Assys., Draw Bar Assy., Plate	
REAR AXLE & DIFFERENTIAL GROUP	38
Differential Sub Assy., Gear, Covers, Carrier, Rear Axle Assy., Hub Assys	

Table of Contents Continued

ELECTRICAL GROUP	40
Battery, Cables, Ammeter, Ignition Switch & Key Assy, Harness Assy, Interlock Switch, Headlight, Circuit Breaker, Starter Solenoid	
DASH GROUP	42
Instrument Panel, Control Clutch Handle, Dash Assy., Throttle Arm	
HOOD & GRILLE GROUP	44
Hood & Grille Assy., Hood Moulding, Hood Strap, Screen, Headlight Bracket	
SEAT & DECK GROUP - Mfg. Nos. 1692143 & 1692144	46
Seat Assy., Seat Deck Assy., Seat Deck Bracket, Safety Seat Switch, Hinges	
SEAT & DECK GROUP - Mfg. Nos. 1692450, 1692452, 1692503	48
Seat Assy., Seat Deck Assy., Seat Deck Bracket, Safety Seat Switch, Hinges	
TIRE & WHEEL GROUP - Mfg. No. 1692143	50
Wheel & Tire Assy, Tube, Valve Stem & Cap, Drive Wheel	
TIRE & WHEEL GROUP - Mfg. No. 1692144	52
Wheel & Tire Assy, Tube, Valve Stem & Cap, Drive Wheel	
42" & 48" HOUSING AND ARBOR GROUP	54
Mower Housing, Arbors, Baffles	
42" COVER, DRIVE & BAIL GROUP	56
Cover, Adjusting Arms, Belt, Idler Pulley, Blades	
48" COVER, DRIVE & BAIL GROUP	58
Cover, Adjusting Arms, Belt, Idler Pulley, Blades	
42" HEIGHT ADJUSTING AND ROLLER GROUP	60
Adjusting Handles, Roller Bar, Rollers	
48" HEIGHT ADJUSTING AND ROLLER GROUP	62
Adjusting Handles, Roller Bar, Rollers	
42" & 48" DEFLECTOR, STONE GUARD & ARM ASSY. GROUP	64
"V" Belt, Rocker Arm, Deflector, Stone Guard	
DECAL GROUP	66
PART NUMBER INDEX	A1
STANDARD HARDWARE TORQUE CHART	inside back cover

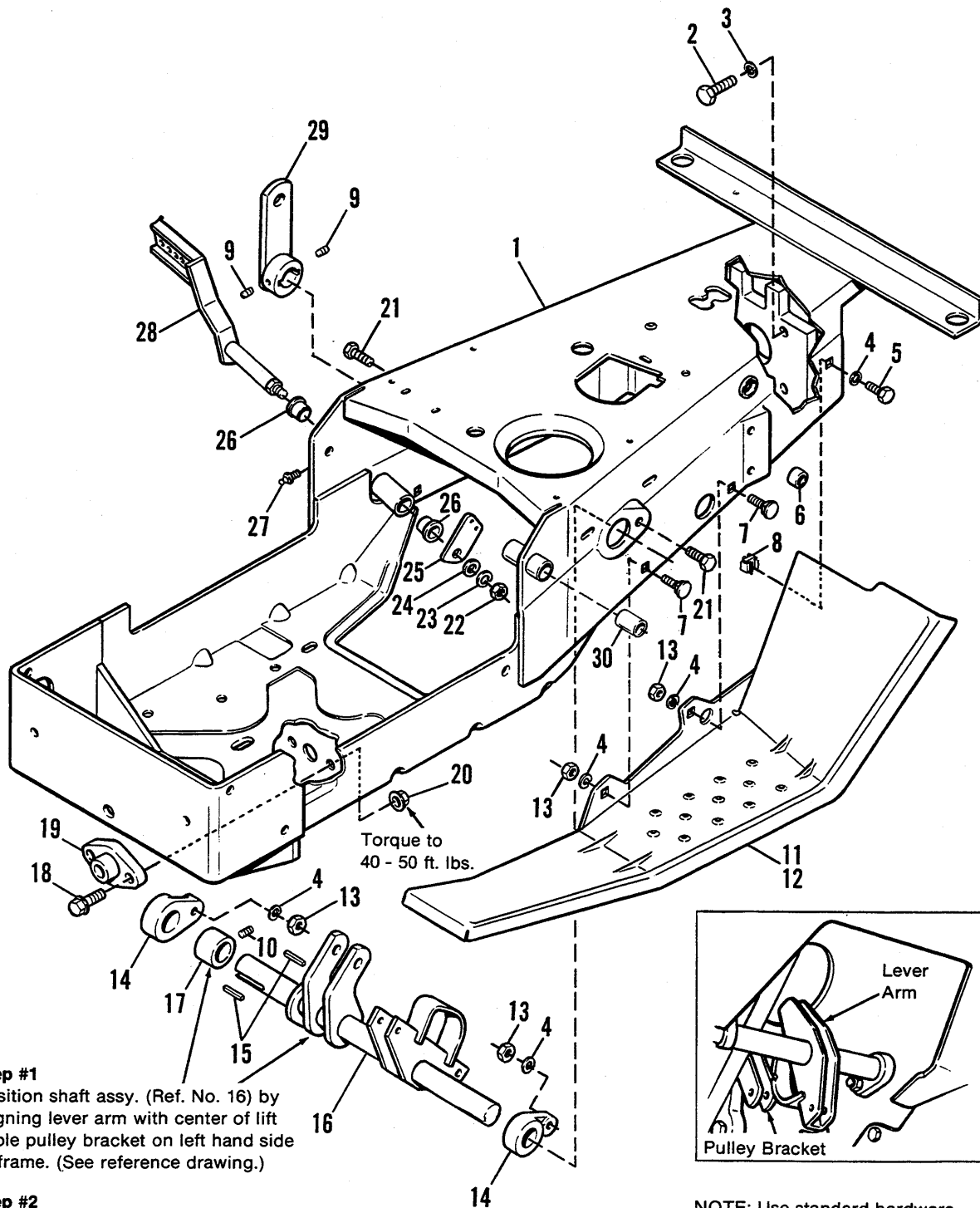
OPTIONAL ACCESSORIES

- **Chrome "Moon" Hubcaps**

For Front Wheels, 2 - 156210, 6" Hubcap

For Rear Wheels, 2 - 154505, 12" Hubcap

- **Hour Meter Kit, 1685535**



Step #1

Position shaft assy. (Ref. No. 16) by aligning lever arm with center of lift cable pulley bracket on left hand side of frame. (See reference drawing.)

Step #2

Secure shaft assembly in place w/set collar (Ref. No. 17) and setscrew (Ref. No. 10). Then install lift lever assy. (Ref. No. 29) on shaft assy. (Ref. No. 16) with no end play side to side.

NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

Frame & Footrest Group

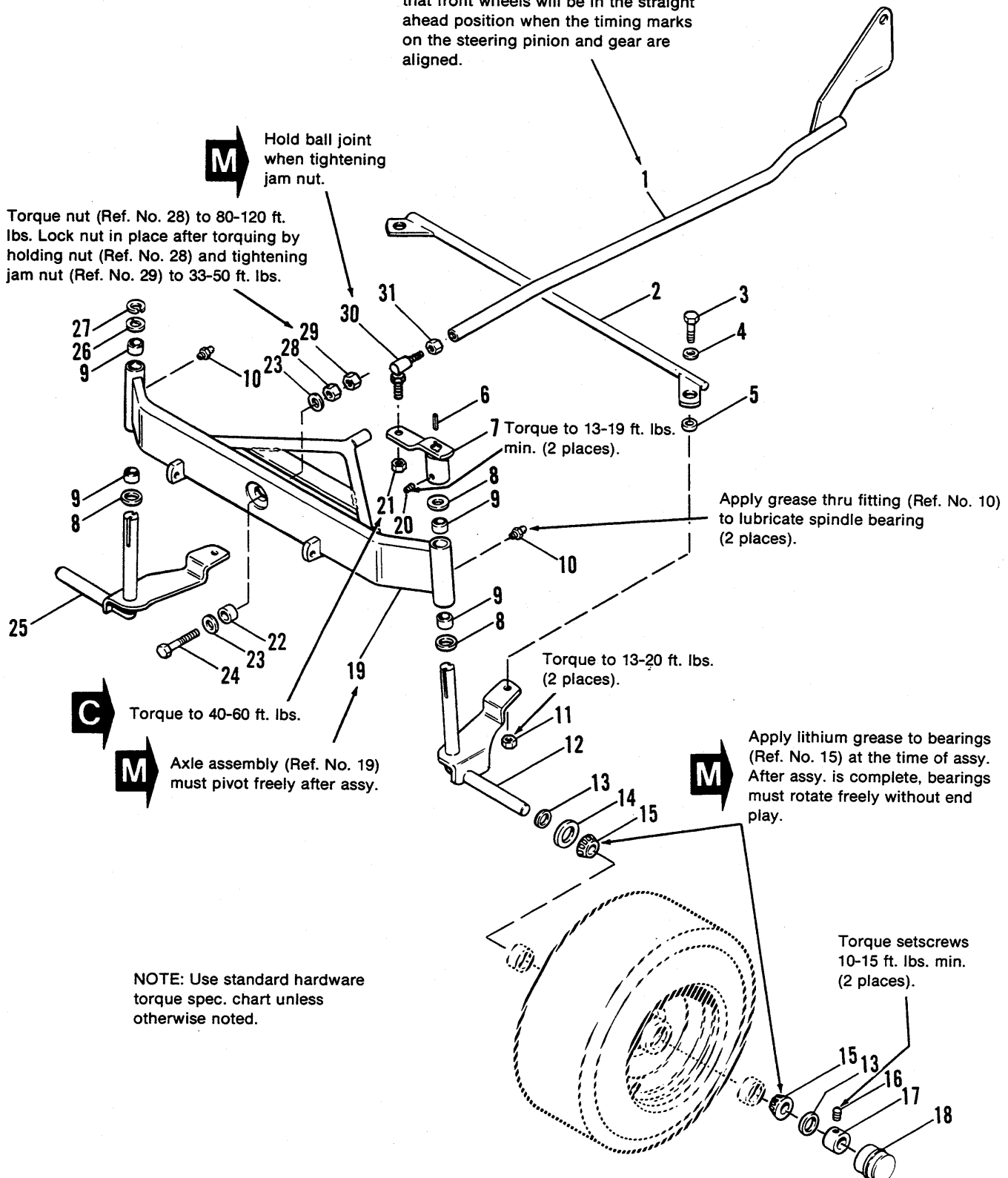
Ref. No.	Part No.	Qty.	Description
*1	1708757	1	FRAME ASSY., w/Bushings
2	1921212	4	CAPSCREW, Hex Hd., 7/16-14 x 1-1/2
3	1918199	4	LOCKWASHER, 7/16
4	1917356	8	LOCKWASHER, 5/16
5	1921332	2	CAPSCREW, Hex Hd., 5/16-18 x 3/4
6	174662	1	BUSHING
7	1931333	4	CARRIAGE BOLT, 5/16-18 x 3/4
8	920470	2	NUT, Speed, 5/16-18
9	1928734	2	SETSCREW, 5/16-18 x 1/4
10	1928721	1	SETSCREW, 5/16-18 x 1/2
11	1665908	1	FOOTREST, L.H.
12	1665909	1	FOOTREST, R.H.
13	1917372	6	NUT, Hex, Full, 5/16-18
14	170975	2	BEARING, Lift Lever
15	154096	2	KEY
16	1667271	1	SHAFT ASSY., Lift (Hydro Lift)
17	157624	1	COLLAR, Set
18	1928727	2	SCREW, Hex, Flange, Whiz, 3/8-16 x 1-1/4
19	1653876	1	BEARING, Pivot
20	1928352	2	LOCKNUT, Hex, Flange, 3/8-16
21	1921977	2	CAPSCREW, Hex Hd., 5/16-18 x 1-1/4
22	1916950	1	NUT, Hex, Full, 3/8-16
23	1916965	1	LOCKWASHER, 3/8
24	1917328	1	WASHER, Plain, 3/8
25	157300	1	ARM, Foot Pedal
26	1663114	2	BUSHING
27	921133	1	FITTING, Grease
28	1674137	1	PEDAL ASSY., Foot
29	157625	1	LEVER ASSY., Front Lift
30	158544	1	BEARING, Interim Pinion

*Ref. No. 1 includes Ref. Nos. 6, 27 & 30.

Adjust length of drag link assy. (Ref. No. 1) by positioning end ball joint so that front wheels will be in the straight ahead position when the timing marks on the steering pinion and gear are aligned.

M Hold ball joint when tightening jam nut.

Torque nut (Ref. No. 28) to 80-120 ft. lbs. Lock nut in place after torquing by holding nut (Ref. No. 28) and tightening jam nut (Ref. No. 29) to 33-50 ft. lbs.



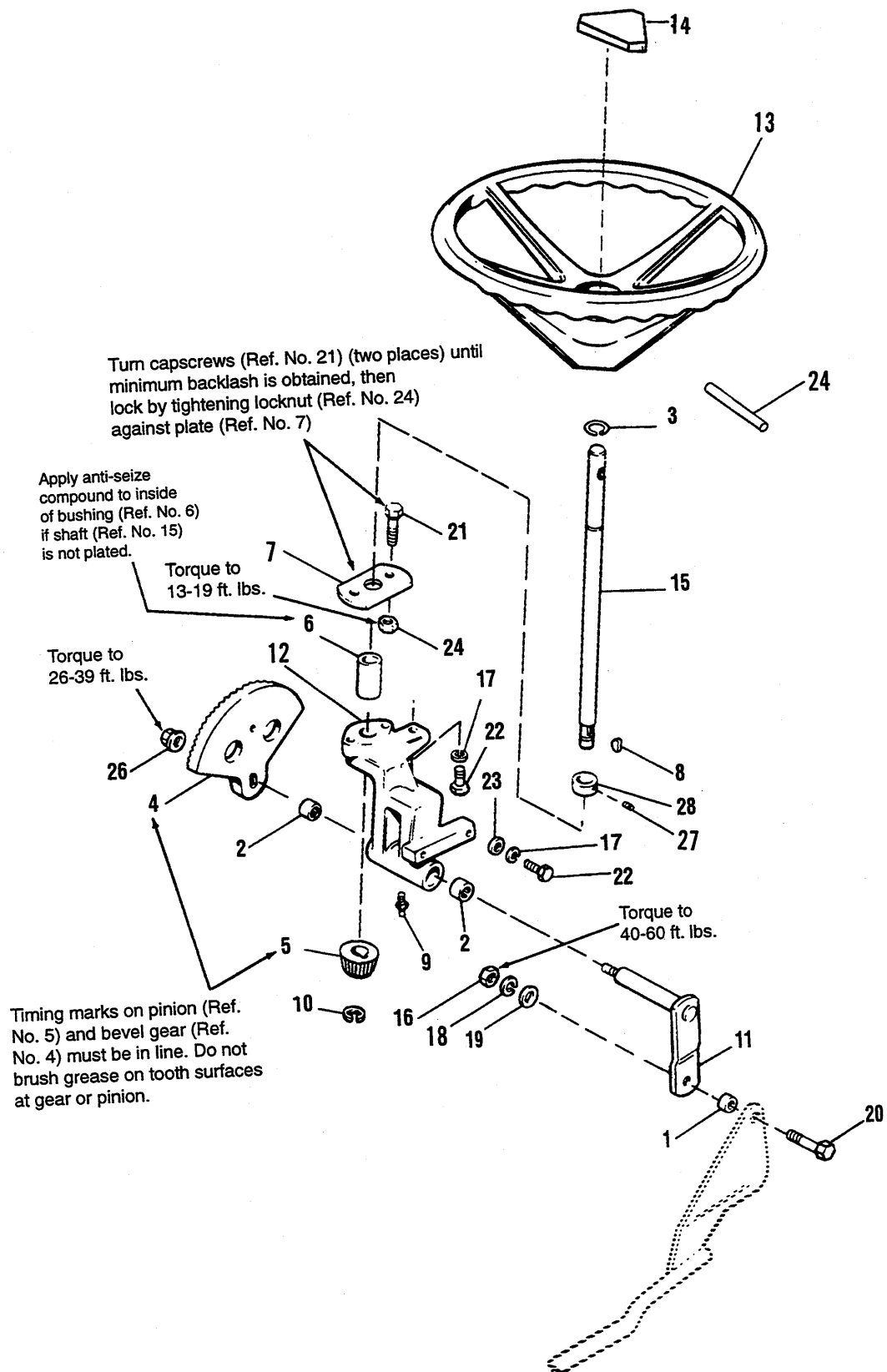
NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

Front Axle Group

Ref. No.	Part No.	Qty.	Description
1	1666648	1	LINK ASSY., Drag
2	157499	1	ROD ASSY., Tie
3	1921210	2	CAPSCREW, Hex Hd., 3/8-16 x 1
4	1924940	2	WASHER, Plain, 3/8
5	154177	2	SPACER
6	157427	2	KEY, Square
7	170998	1	ARM ASSY., Steering
8	1960114	3	WASHER
9	154289	4	BUSHING
10	921133	2	FITTING, Grease
11	1930651	2	LOCKNUT, Hex, 3/8-16
12	171774	1	SPINDLE ASSY., L.H.
13	171375	4	SPACER
14	170168	2	SEAL
15	154486	4	CONE, Bearing
16	1928691	2	SETSCREW, 5/16-18 x 5/16
17	8021010	2	COLLAR, Set
18	154487	2	CAP, Hub
19	1650553	1	AXLE ASSY., Front (Incl. Ref. No. 9)
20	1928721	2	SETSCREW, 5/16-18 x 1/2
21	1930245	1	LOCKNUT, Hex, 1/2-20
22	157618	1	SPACER
23	1918431	2	WASHER, Plain, 1/2
24	1927469	1	CAPSCREW, Hex Hd., 1/2-13 x 2-1/4
25	157494	1	SPINDLE ASSY., R.H.
26	8061012	1	WASHER
27	927794	1	RING, Retaining
28	1930648	1	LOCKNUT, Hex, 1/2-13
29	1913744	1	LOCKNUT, Hex, Jam, 1/2-13
30	164272	1	BALLJOINT
31	1919262	1	LOCKNUT, Hex, Jam, 1/2-20

NOTE: See page 48 - 51 for Wheel and Tire parts list.

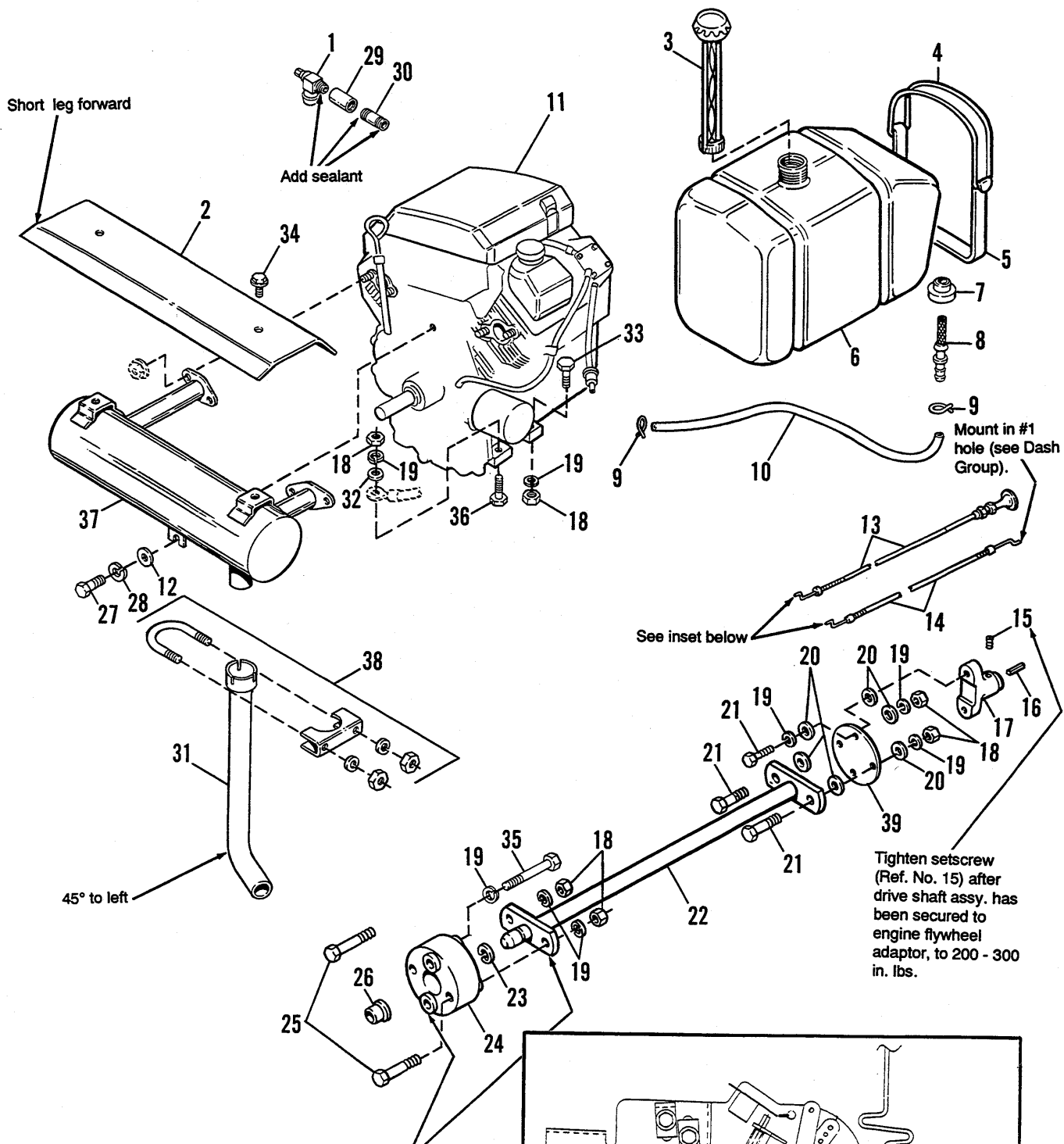


All Models

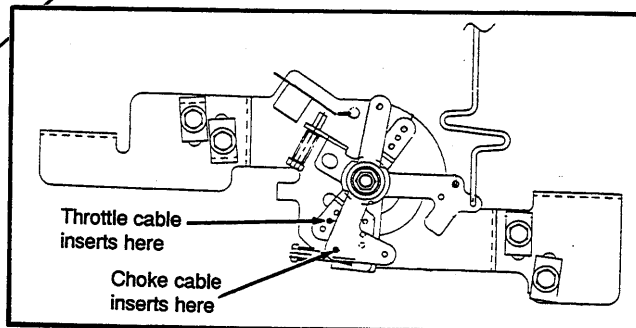
Steering Group

Ref. No.	Part No.	Qty.	Description
1	105051	1	SPACER
2	154258	2	BEARING, Needle
3	154264	1	RING, Retaining
4	170987	1	GEAR, Steering
5	170988	1	PINION, Bevel
6	170992	1	BUSHING
7	171000	1	PLATE, Steering
8	910224	1	KEY, Woodruff, #6
9	912808	1	FITTING, Grease
10	927793	1	E-RING
11	1666204	1	ARM ASSY., Steering
12	166625	1	HOUSING ASSY., Steering (Incl. Ref. No. 22)
13	1701197*	1	WHEEL, Steering (Incl. Ref. Nos. 14 & 27)
14	1714097	1	CAP, Steering Wheel
15	1714440	1	SHAFT, Steering
16	1916951	1	NUT, Hex, Full, 1/2-13
17	1916965	3	LOCKWASHER, 3/8
18	1916966	1	LOCKWASHER, 1/2
19	1918431	1	WASHER, Plain, 1/2
20	1920328	1	CAPSCREW, Hex Hd., 1/2-13 x 1-1/2
21	1920415	2	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
22	1921210	3	CAPSCREW, Hex Hd., 3/8-16 x 1/2
23	1924940	2	WASHER, Bevel, 3/8
24	1928731	2	LOCKNUT, Hex, Jam, 3/8-16
25	1928734	1	SETSCREW, 5/16-18 x 1/4
26	1930650	1	LOCKNUT, Hex, Flange, 7/16-14
27	1960540	1	PIN, Spring, 5/16 x 2
28	8021010	1	COLLAR, Set

* Mfg. Nos. 1692143 & 1692144 can be serviced with Steering Wheel Kit, part no. 1686651.
Kit includes Ref. No. 13, 14 & 27.



NOTE: Use standard hardware torque spec. chart unless otherwise noted.



All Models

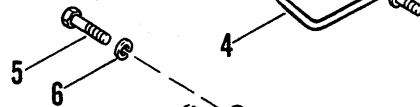
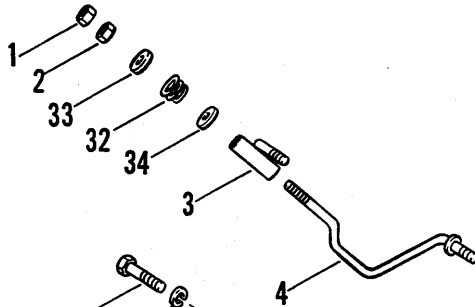
Engine, Exhaust, & Drive Shaft Group

Ref. No.	Part No.	Qty.	Description
1	1708405	1	SHUT OFF VALVE
2	1708873	1	HEAT SHIELD ASSY.
3	171252	1	CAP, Fuel Tank
4	172744	2	STRAP, Fuel Tank
5	171330	2	STRAP, Tank
6	1664518*	1	TANK ASSY., Fuel
7	1654930	1	BUSHING
8	1664460	1	FITTING
9	1960112	2	CLAMP, Hose
10	1676861	1	HOSE, Fuel, 12"
11	**	1	ENGINE, Kohler, 18 HP
12	1925125	1	WASHER, 15/32
13	1708764	1	CHOKE CONTROL, w/knob
14	1708763	1	THROTTLE CONTROL
15	1960475	1	SETSCREW, 3/8-24 x 3/8
16	157427	1	KEY, Drive Shaft
17	172264	1	FLANGE, Drive Shaft
18	1916950	8	NUT, Hex, 3/8-16
19	1916965	12	LOCKWASHER, 3/8
20	157424	8	WASHER, Special
21	1920415	4	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
22	1708729	1	SHAFT ASSY., Drive
23	927794	1	RETAINING RING
24	1668637	1	COUPLING, Compression
25	1921972	2	CAPSCREW, Hex Hd., 3/8-16 x 2-3/4
26	176440	1	BUSHING
27	1920676	1	CAPSCREW, Hex Hd., 7/16-14 x 1
28	1918199	1	LOCKWASHER, 7/16
29	960477	1	COUPLING, Pipe, Straight
30	901489	1	NIPPLE, Pipe, 3/8 x 1
31	1708761	1	PIPE, Exhaust, Elbow
32	1924940	1	WASHER, 11/32
33	1921971	3	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
34	1924856	2	SCREW, Hex Hd., Taptite 5/16-18 x 1/2
35	1921972	2	CAPSCREW, Hex Hd., 3/8-16 x 2-1/2
36	1923701	1	CAPSCREW, 3/8-16 x 2
37	1708522	1	MUFFLER, Exhaust
38	1712286	1	CLAMP, Exhaust
39	173026	1	COUPLING

* Ref. No. 6 includes Ref. Nos. 6, 7, 8, 9 (Qty. 1) & 10.

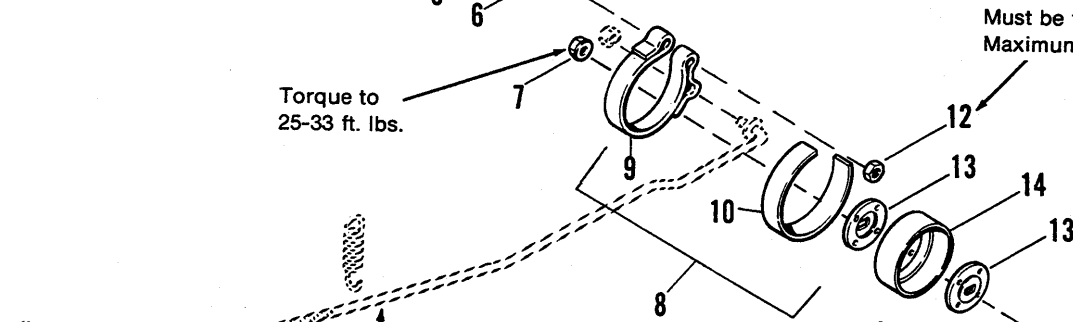
** See your authorized Kohler Engine dealer for parts and service.

See Foot
Pedal
Adjustment



Torque to
25-33 ft. lbs.

Must be free to pivot.
Maximum end play 1/64 inch.



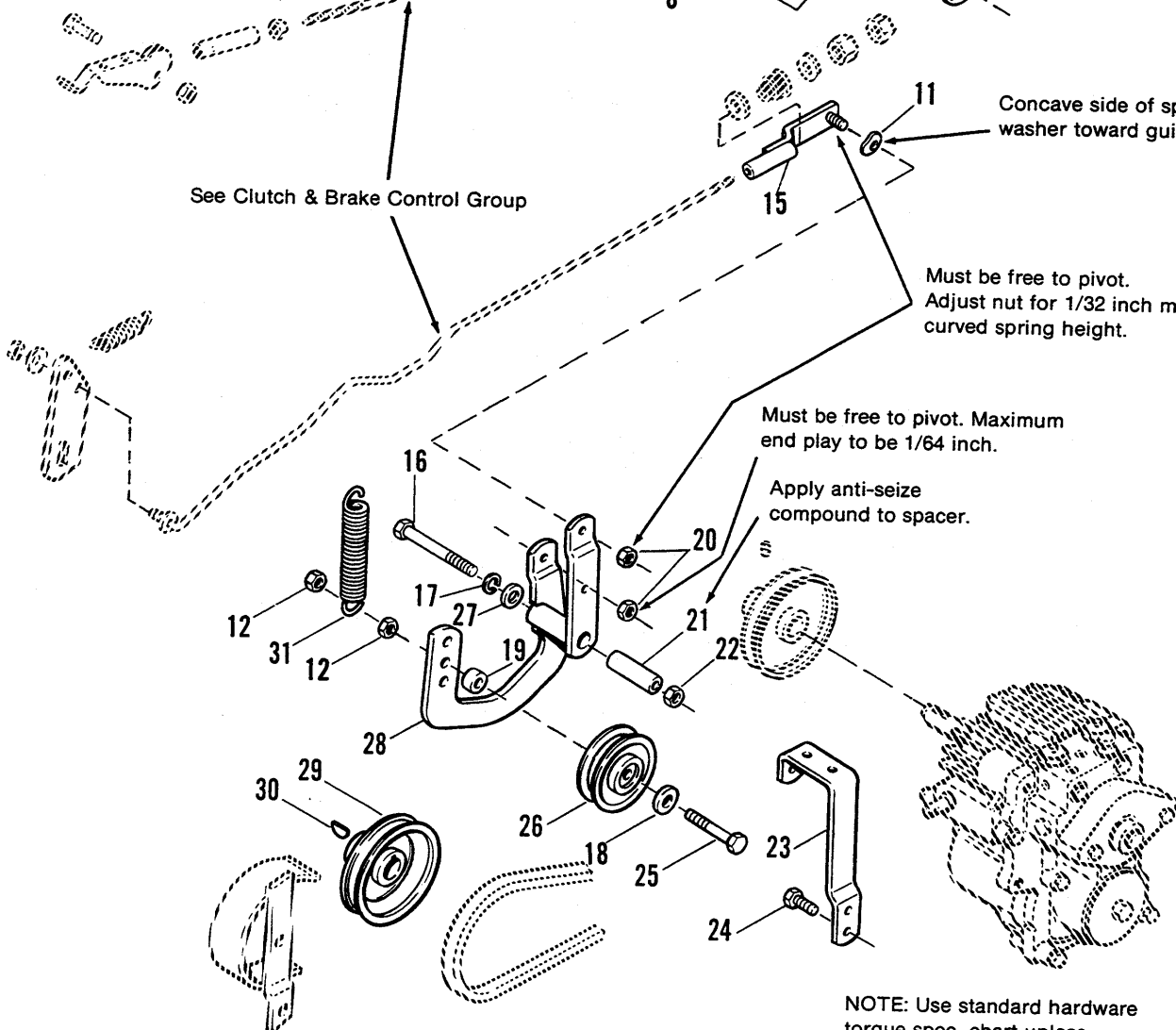
See Clutch & Brake Control Group

Concave side of spring
washer toward guide assy.

Must be free to pivot.
Adjust nut for 1/32 inch max.
curved spring height.

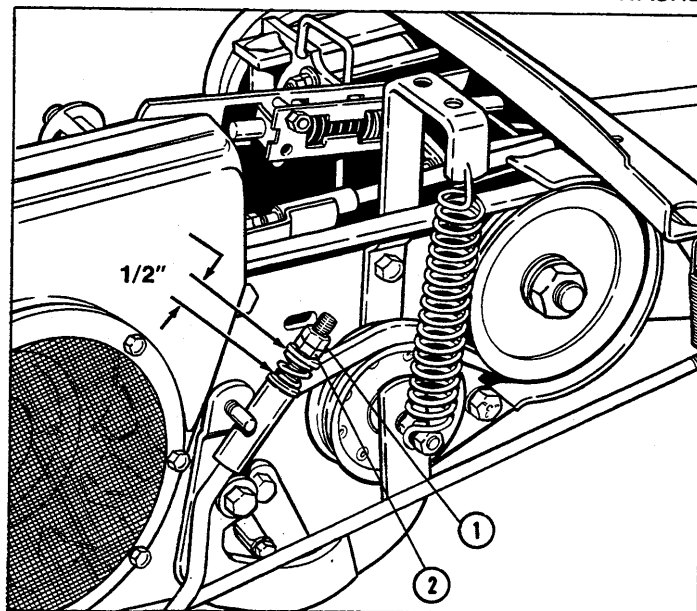
Must be free to pivot. Maximum
end play to be 1/64 inch.

Apply anti-seize
compound to spacer.



NOTE: Use standard hardware
torque spec. chart unless
otherwise noted.

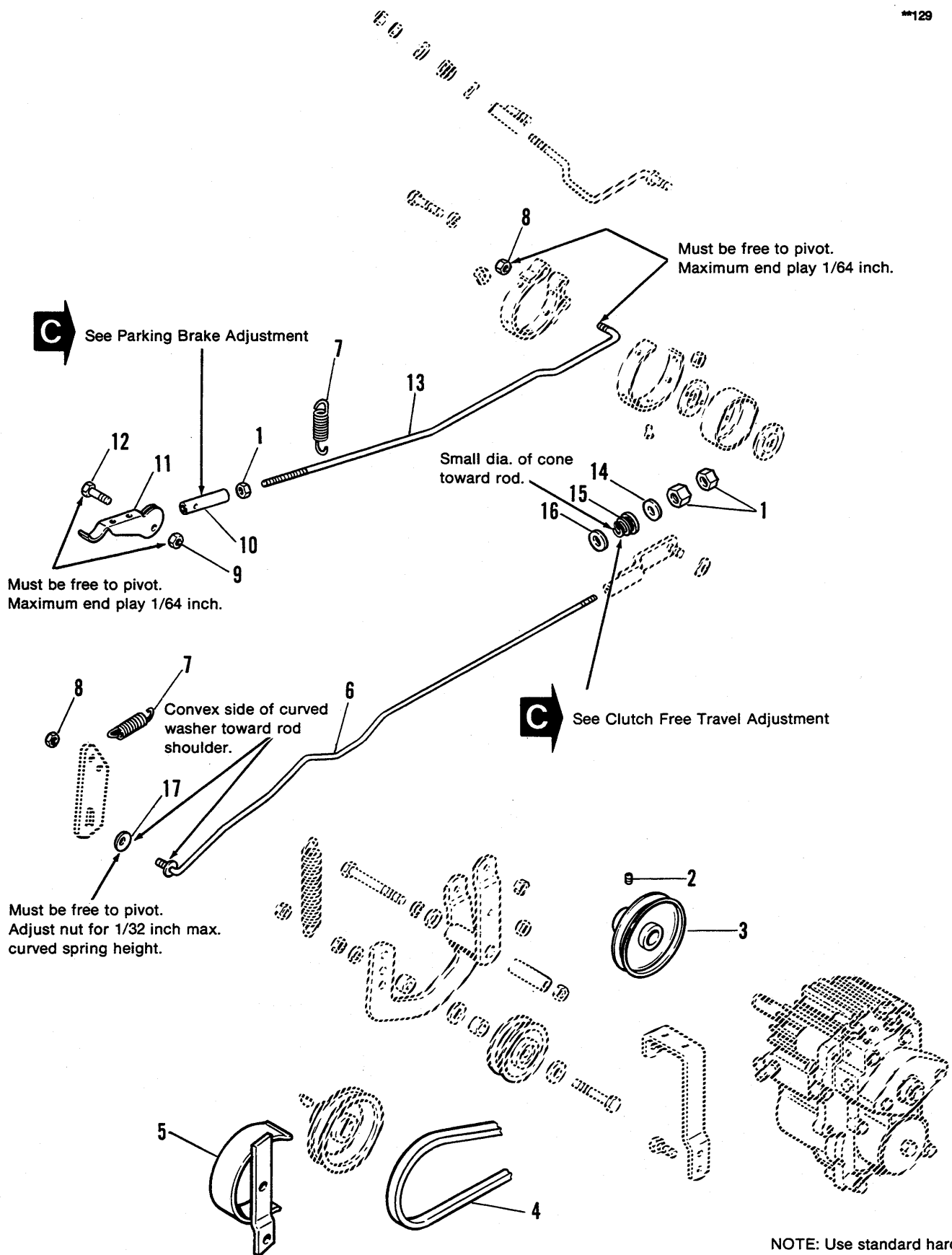
Ref. No.	Part No.	Qty.	Description
1	1919439	1	LOCKNUT, Hex, Esna, 3/8-16
2	1916950	1	NUT, Hex, Full, 3/8-16
3	166119	1	GUIDE ASSY., Rod
4	1650651	1	ROD, Brake
5	1921971	1	CAPSCREW, Hex Hd., 3/8-16 x 1-3/4
6	1916965	1	LOCKWASHER, 3/8
7	1930650	1	LOCKNUT, Hex, Flange, 7/16-14
8	1679354	1	BAND ASSY., Brake (Incl. Ref. Nos. 9 & 10)
9		1	BAND, Brake (See Ref. No. 8)
10		1	LINING, Brake (See Ref. No. 8)
11	1668737	1	WASHER, Curved Spring
12	1960251	3	LOCKNUT, Hex, 3/8-16
13	158196	2	WASHER, Special
14	166176	1	DRUM, Brake
15	166157	1	GUIDE ASSY., Rod
16	1928295	1	CAPSCREW, Hex Hd., 7/16-14 x 3-3/4
17	1918199	1	LOCKWASHER, 7/16
18	1924940	1	WASHER, Plain, 3/8 std.
19	1667812	1	SPACER
20	1923362	2	LOCKNUT, Hex, 5/16-18
21	166130	1	SPACER
22	1918213	1	NUT, Hex, Full, 7/16-14
23	166156	1	BRACKET
24	1926035	2	SCREW, Self-tapping, 3/8 x 3/4
25	1922130	1	CAPSCREW, Hex Hd., 3/8-16 x 2-1/4
26	1704926	1	PULLEY ASSY., Idler (Plastic)
27	1925125	1	WASHER, 3/8
28	166126	1	LEVER ASSY., Idler
29	1657323	1	PULLEY
30	905123	1	KEY
31	154369	1	SPRING
32	157127	1	SPRING, Cone
33	1922611	1	WASHER
34	1924940	1	WASHER



C FOOT PEDAL BRAKE ADJUSTMENT

Adjust foot brake after adjusting tractor clutch (see following pages):

1. Lock parking brake.
2. Adjust nut (Ref. no. 2) for 1/2 inch spring height between washers.
3. Depress foot pedal, to engage brake.
Transmission drive belt must be fully disengaged when brake is engaged.
4. Tighten locknut (Ref. No. 1) against adjustment nut (Ref. No. 2) when adjustment is correct. Make sure adjustment nut does not move.



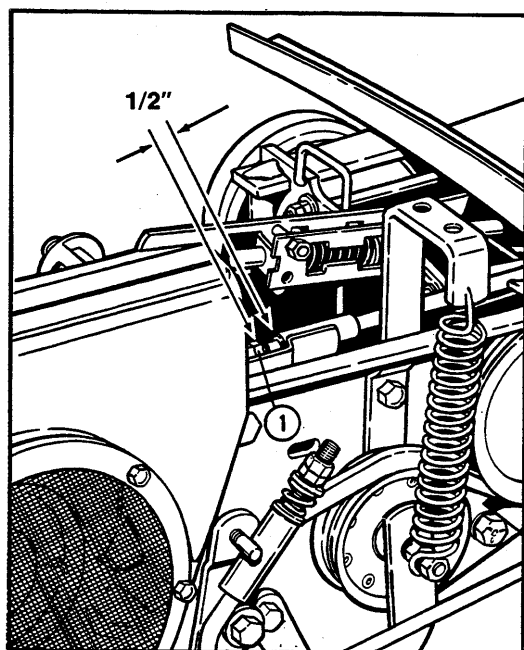
Clutch & Brake Control Group

Ref. No.	Part No.	Qty.	Description
1	1917372	3	NUT, Hex, Full, 5/16-18
2	1928721	1	SETSCREW, 5/16-18 x 1/2
3	166173	1	PULLEY, Drive, Transmission
4	1650502	1	V-BELT, Drive, Transmission
5	166122	1	GUARD ASSY.
6	1650531	1	ROD, Clutch
7	121037	2	SPRING
8	1923362	2	LOCKNUT, Hex, 5/16-18
9	1923358	1	LOCKNUT, Hex, 1/4-20
10	171994	1	END, Rod
11	172108	1	LEVER, Parking Brake
12	1926771	1	CAPSCREW, Hex Hd., 1/4-20 x 1
13	1668419	1	ROD ASSY.
14	1919381	1	WASHER, 5/16
15	157127	1	SPRING, Cone
16	1921314	1	WASHER
17	1668737	1	WASHER, Curved, Spring

C CLUTCH FREE TRAVEL ADJUSTMENT

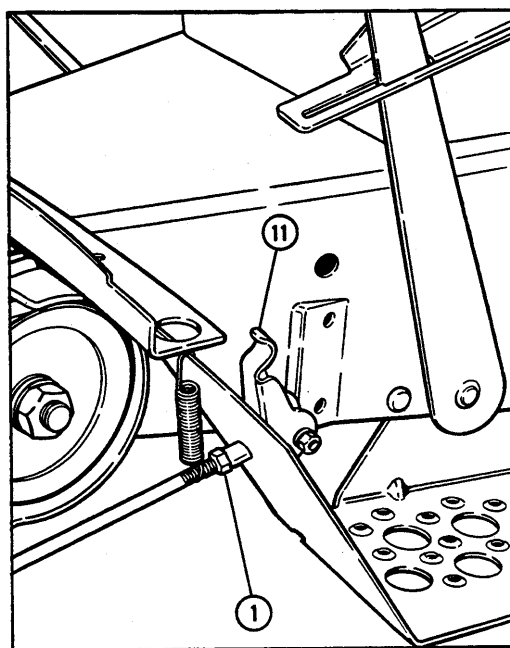
Adjust the tractor clutch before adjusting foot brake and parking brake.

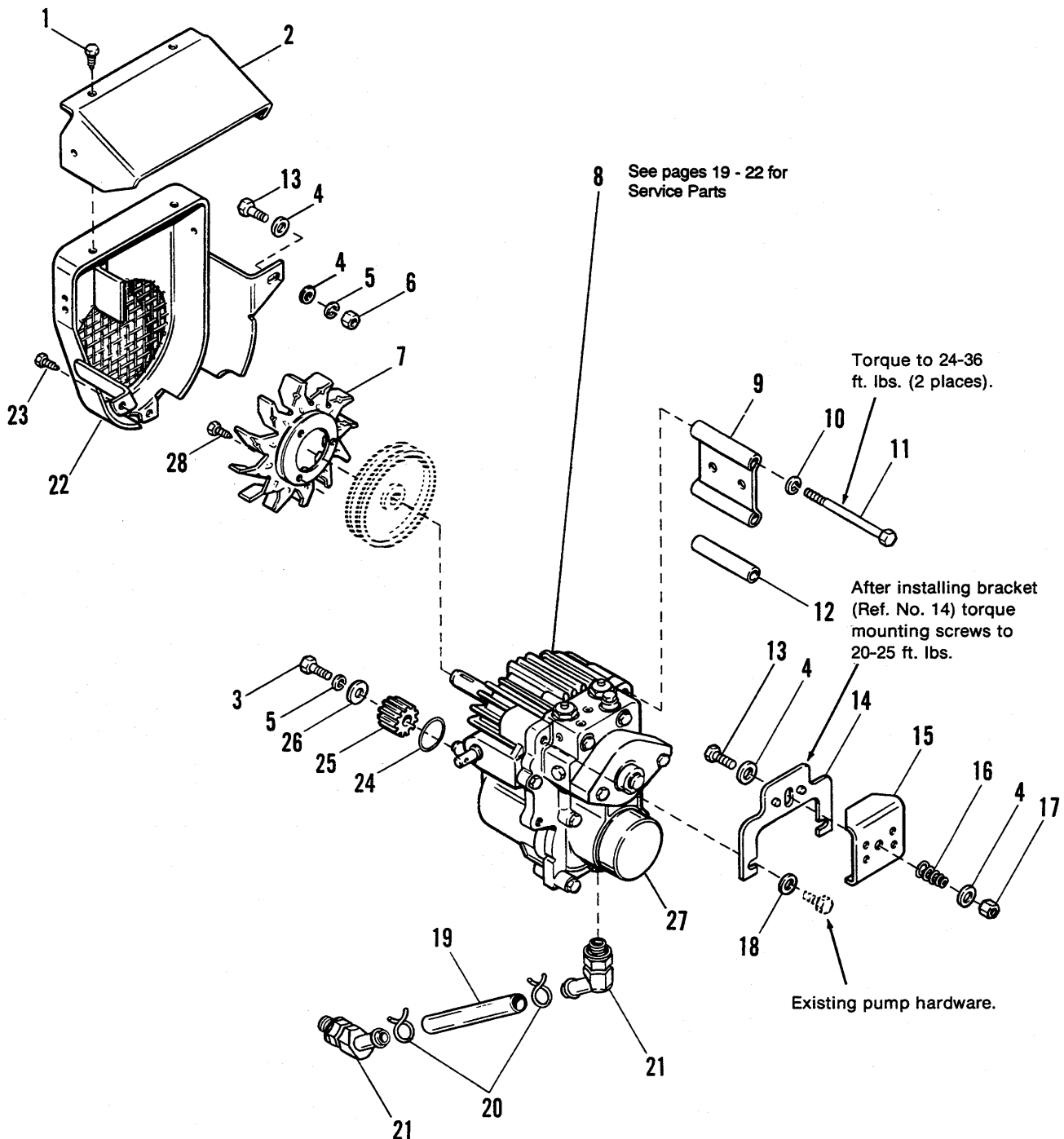
1. Rotate belt drive a minimum of 3 revolutions.
2. Make sure clutch pedal is released & clutch is as far to the rear as it will go.
3. Adjust double nuts (Ref. No. 1) for 1/2 inch spring height between washers. Then lock nuts together to secure adjustment.

**C PARKING BRAKE ADJUSTMENT**

Adjust the parking brake after the tractor clutch (see column 1) and foot brake (see page 13) have been adjusted.

1. Loosen nut (Ref.No.1).
2. Rotate Parking brake lever (Ref. No, 11) one complete turn when making adjustments.
3. To lock parking brake rotate lever up towards seat deck until lever is against upper area of footrest.
4. After adjustment, parking brake must hold the vehicle in any direction when parked on a 30% or 17° slope.
5. After parking brake is properly adjusted, secure adjustment tightening nut (Ref. No. 1).





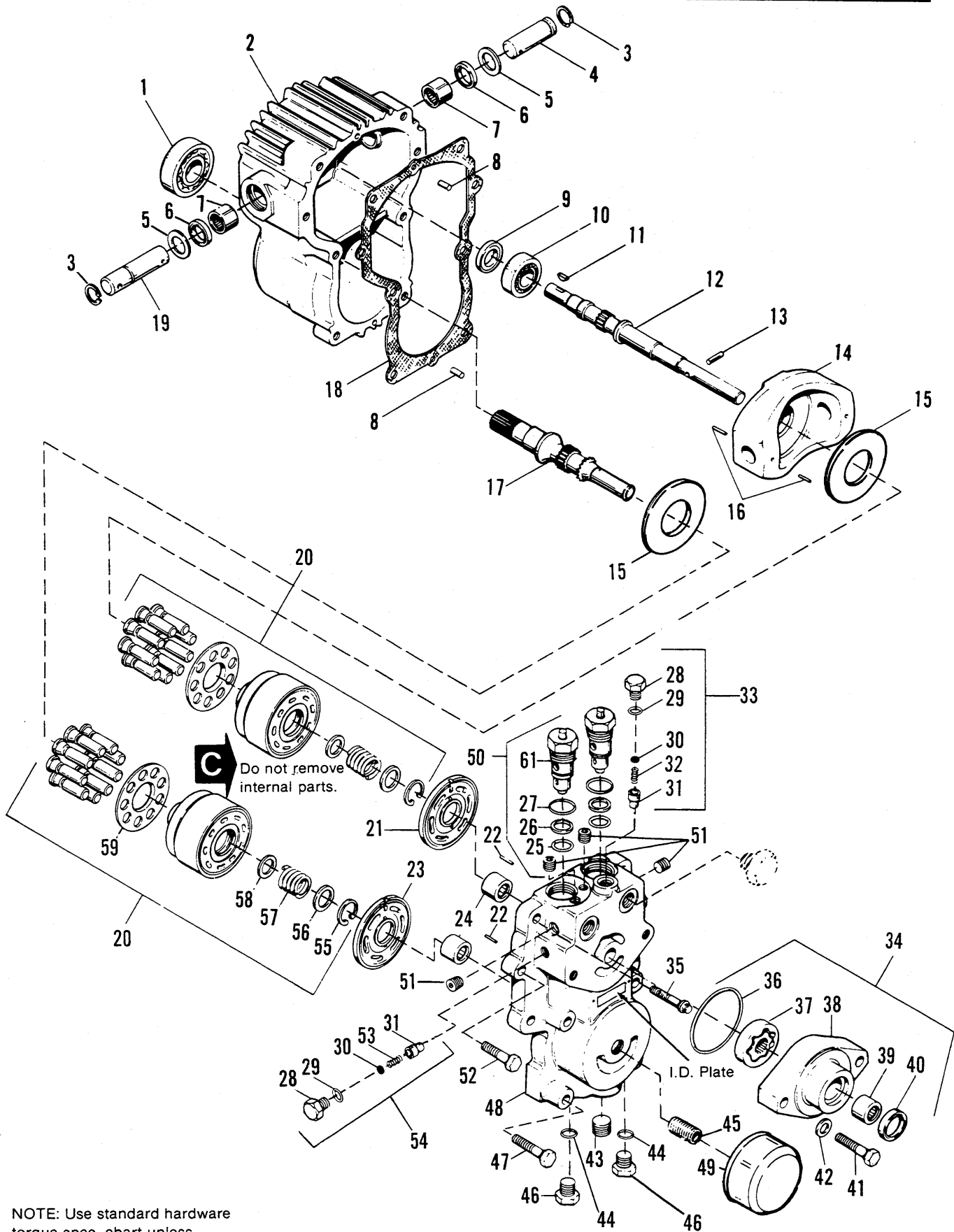
NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

Hydrostatic Pump Group

Ref. No.	Part No.	Qty.	Description
1	1923735	4	SCREW, Self-Tapping, #10-3/8
2	178779	1	DEFLECTOR, Shroud
3	1921332	1	CAPSCREW, Hex Hd., 5/16-18 x 3/4
4	1919326	4	WASHER, Plain, 5/16
5	1917356	2	LOCKWASHER, 5/16
6	1917372	1	NUT, Hex, Full, 5/16-18
7	166022	1	FAN, Pulley
8	1671582	1	HYDRO PUMP, (see pages 18 - 21 for service parts)
9	1650633	1	SPACER
10	1916965	3	LOCKWASHER, 3/8
11	1925695	3	CAPSCREW, Hex Hd., 3/8-16 x 5
12	1650524	1	SPACER
13	1921333	2	CAPSCREW, Hex Hd., 5/16-18 x 1
14	1651089	1	BRACKET
15	1651090	1	LATCH, Release
16	153010	1	SPRING
17	1923362	1	LOCKNUT, Hex, 5/16-18
18	1960103	2	WASHER
19	1671229	1	HOSE, Inlet
20	930709	2	CLAMP, Hose
21	1671228	2	ELBOW, Hose Fitting 45°
22	1666415	1	SHROUD ASSY., w/Screen
23	1664847	1	SCREW, Hex, Washer Hd., Taptite, 5/16-18 x 3/4
24	1651703	1	O-RING
25	166003	1	PINION, Motor Shaft
26	1933468	1	WASHER
27	1709322	1	FILTER ASSY.
28	1927428	3	SCREW, Taptite, 1/4-20 x 3/8

Hydrostatic Pump (Service Parts for 1671582 - Hydro Lift)



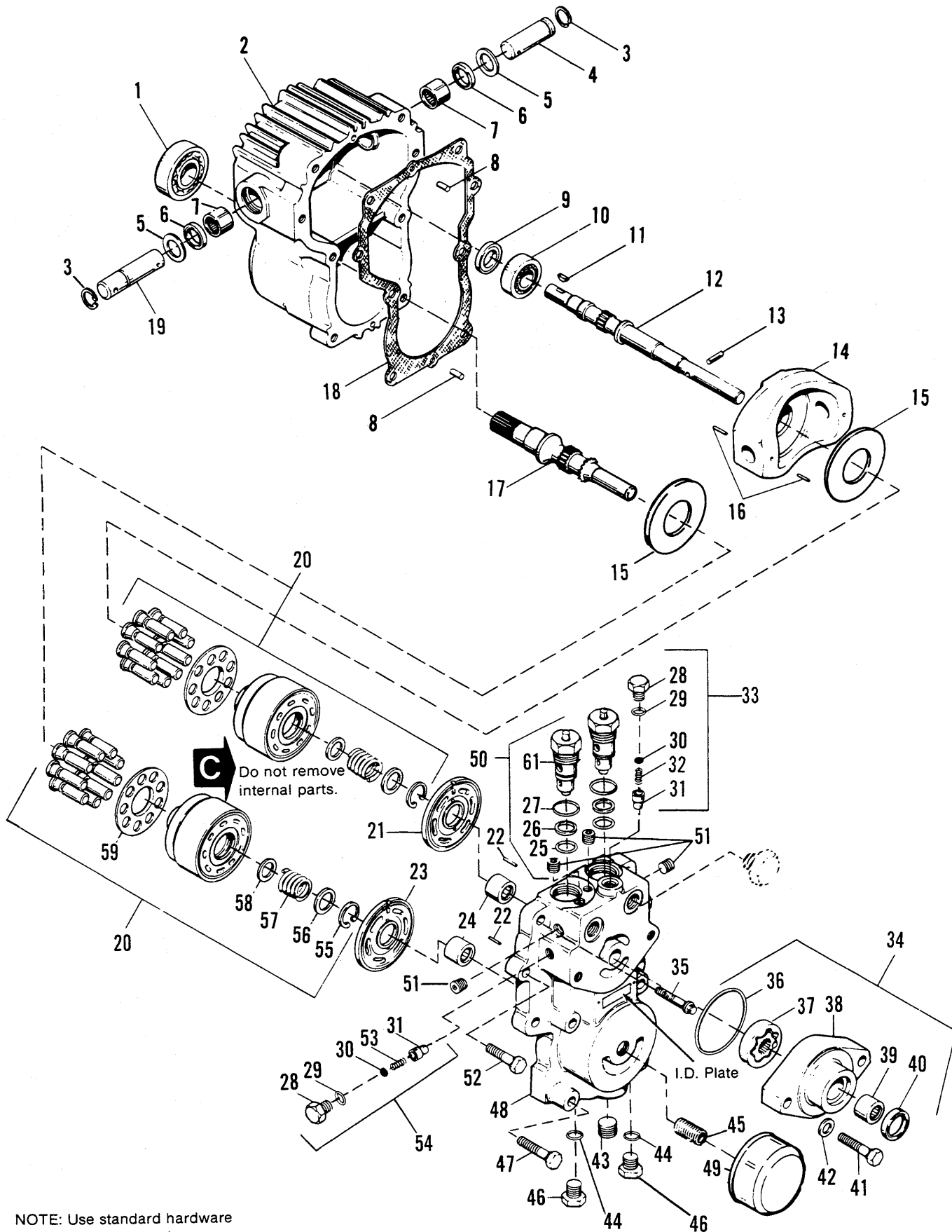
All Models

Hydrostatic Pump (Service Parts for 1671582 - Hydro Lift)

Ref. No.	Part No.	Qty.	Description
1	1652181	1	BEARING, Ball
2	1673534	1	HOUSING
3	1652192	2	RING, Retainer
4	1652194	1	TRUNNION
5	1652235	2	WASHER, Special
6	1652234	2	SEAL, Lip
7	1652251	2	BEARING, Needle
8	1652185	2	PIN, Headless, Straight
9	1612093	2	SEAL, Lip
10	1652231	1	BEARING, Ball
11	905123	1	KEY, Woodruff
12	1652229	1	SHAFT, Pump
13	1652228	1	PIN, Headless
14	1673533	1	PLATE, Swash
15	1673532	2	PLATE, Thrust
16	1652226	3	PIN, Spring, Coiled
17	1652186	1	SHAFT, Motor
18	1652184	1	GASKET
19	1652183	1	TRUNNION
20	1673535	2	CYLINDER BLOCK KIT
21	1652223	1	PLATE, Valve, Pump
22	1652224	2	PIN, Straight
23	1652189	1	PLATE, Valve, Motor
24	1652222	2	BEARING, Needle
25	1652221	2	O-RING
26	1652220	2	RING, Backup
27	1652219	2	O-RING
28	1652217	2	PLUG, Hex Hd.
29	921884	2	O-RING
30	1652216	4	SHIM (Shim as required)
31	1652214	2	CONE, Relief Valve
32	1667773	1	SPRING, Relief Valve
33	1667774	1	RELIEF VALVE KIT (Incl. Ref. Nos. 28-32)
34	1685128	1	CHARGE PUMP KIT (Incl. Ref. Nos. 36-40)
35	1652212	2	CAPSCREW, 12 pt.
36	1652207	1	O-RING

Ref. No. 37 - 61 are on the following page.

Hydrostatic Pump (Service Parts for 1671582 - Hydro Lift)



NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

Hydrostatic Pump (Service Parts for 1671582 - Hydro Lift)

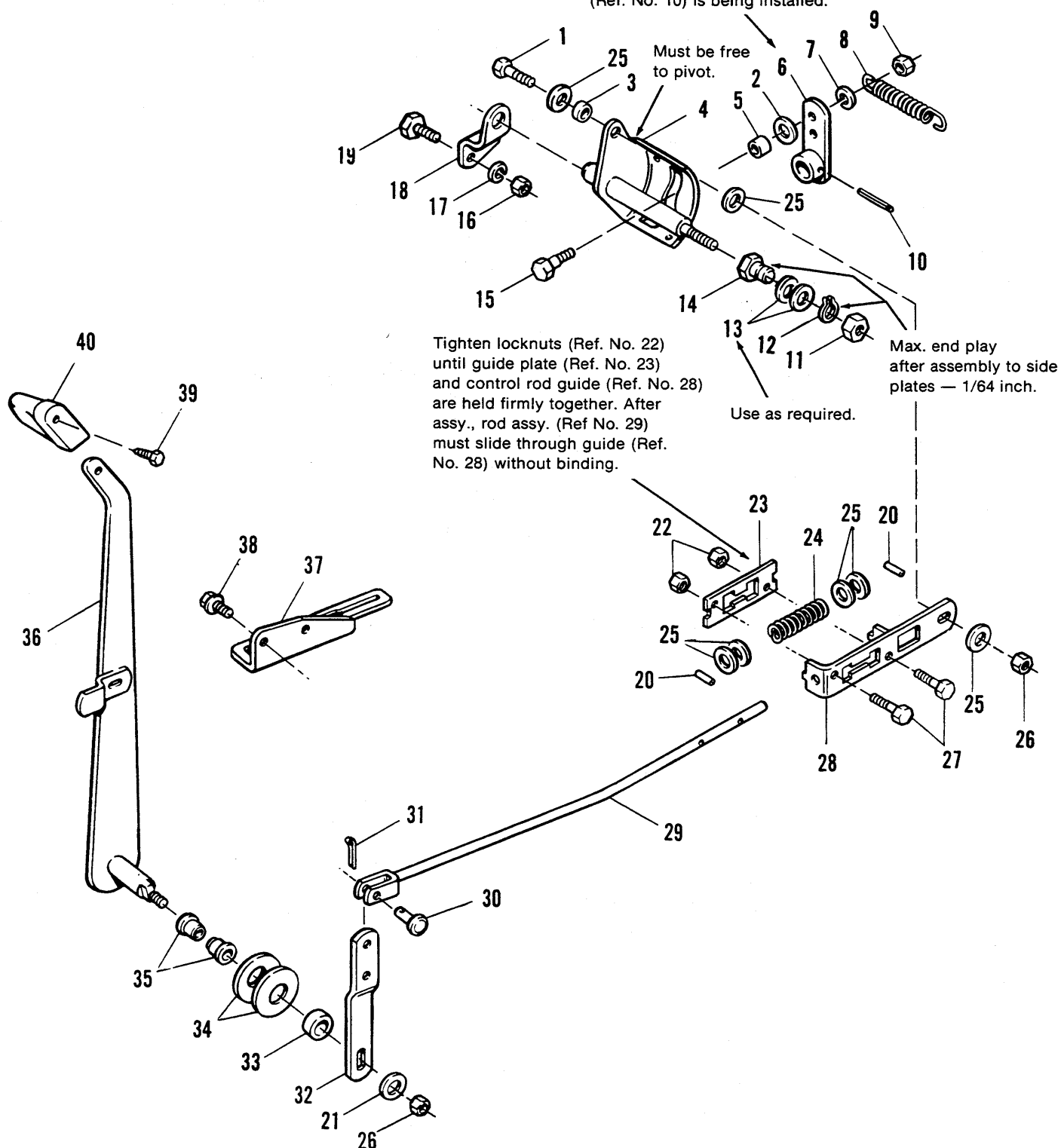
Ref. No.	Part No.	Qty.	Description
37	*	1	GEROTER (See Ref. No. 34)
38	*	1	HOUSING, Charge Pump (See Ref. No. 34)
39	1652204	1	BEARING, Needle
40	1652203	1	SEAL, Lip
41	1927531	2	CAPSCREW, 7/16-14 x 2
42	1918199	2	WASHER, Flat
43	1671665	1	PLUG, Pipe
44	1652196	2	O-RING
45	1671699	1	UNION, Filter
46	1652197	2	PLUG, Hex Hd.
47	1923701	4	CAPSCREW, 3/8-16 x 2
48	1652254	1	SECTION, Center
49	1709322	1	FILTER, 25 Micron
50	1673537	2	CHECK VALVE (Incl. Ref. Nos. 25, 26 & 27)
51	1652213	4	PLUG, Pipe
52	1920415	2	CAPSCREW, 3/8-16 x 1-1/4
53	1652253	1	SPRING, Relief
54	1673538	1	RELIEF VALVE KIT (Incl. Ref. Nos. 28-31 & 53)
55	1656004	2	RING, Retaining
56	1656005	2	WASHER, Rear
57	1656006	2	SPRING
58	1656007	2	WASHER, Front
59	1656009	2	RETAINER, Hub
60	1673534	1	HOUSING ASSY. (Incl. Ref. Nos. 1, 2, 6, 7 & 9)
61	1673537	2	CHECK VALVE ASSY.

***Not Serviced Separately**

Ref. Nos. 1 - 36 are on the preceding page.

M

To prevent internal damage to hydrostatic unit, hub of control link assembly (Ref. No. 6) must be supported while roll pin (Ref. No. 10) is being installed.



NOTE: Use standard hardware torque spec. chart unless otherwise noted.

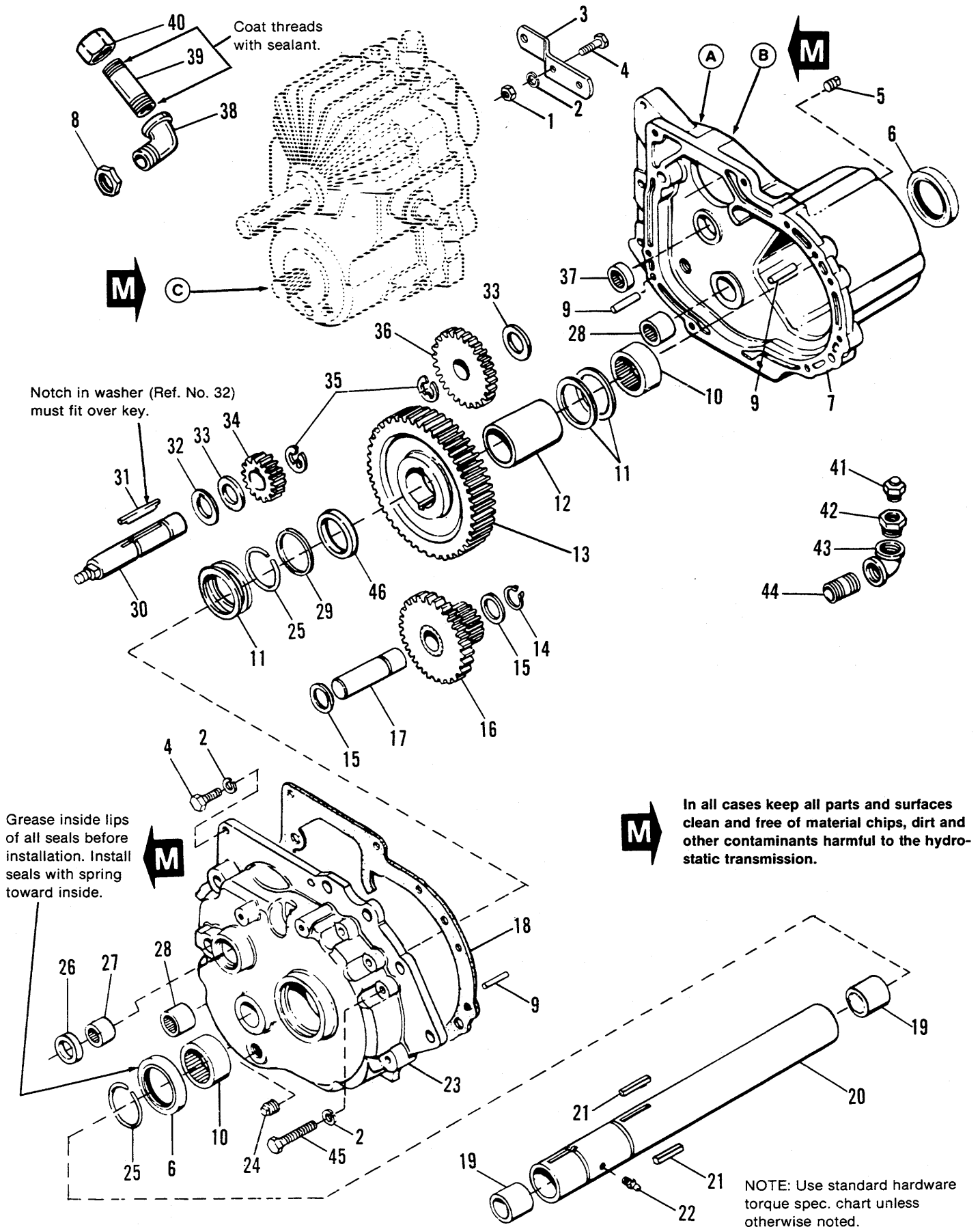
All Models

Hydrostatic Control Group

Ref. No.	Part No.	Qty.	Description
1	1920415	1	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
2	1921319	1	WASHER, Plain, 1/4
3	1650506	1	SPACER
4	1650874	1	SHAFT ASSY.
5	1650592	1	ROLLER, Cam
6	1650392	1	LINK ASSY., Control
7	1916964	1	LOCKWASHER, 1/4
8	174896	1	SPRING
9	1916622	1	NUT, Hex, Full, 1/4-20
10	916937	1	PIN, Roll, 1/4 x 1-1/4
11	1913744	1	LOCKNUT, Hex, Jam, 1/2-13
12	927794	1	RING, Retaining
13	1664204	2	SHIM (as required)
14	1650872	1	NUT, Adjusting
15	1650621	1	BOLT, Shoulder
16	1917372	2	NUT, Hex, Full, 5/16-18
17	1917356	2	LOCKWASHER, 5/16
18	1650401	1	BRACKET, Pivot
19	1960085	2	SCREW, Special
20	919180	2	PIN, Roll, 1/8 x 5/8
21	1924940	1	WASHER, Plain, 3/8
22	1923358	2	LOCKNUT, Hex, 1/4-20
23	1650713	1	PLATE, Guide
24	1650347	1	SPRING
25	1922755	7	WASHER, 3/8
26	1919439	2	NUT, Hex, Esna, 3/8-16
27	1921961	2	CAPSCREW, Hex Hd., 1/4-20 x 1-1/4
28	1650712	1	GUIDE, Control Rod
29	1650715	1	ROD ASSY., Control
30	1708298	1	PIN
31	1918447	1	PIN, Cotter, 3/32 x 3/4
32	1650358	1	LINK
33	1665251	1	SPACER
34	168025	2	WASHER, Spring
35	1663114	2	BUSHING
36	1665257	1	LEVER ASSY., Control
37	1650360	1	QUADRANT
38	1931648	2	SCREW, Hex, Flange, Whiz, 5/16-18 x 1/2
39	1960106	1	SCREW, Plastite, 1/4-20 x 1-1/4
40	1713847*	1	KNOB, Soft

* Mfg. Nos. 1692143 & 1692144 order knob, part number 171165.

NOTE: Refer to Operator's Manual for Hydrostatic Neutral Adjustment.



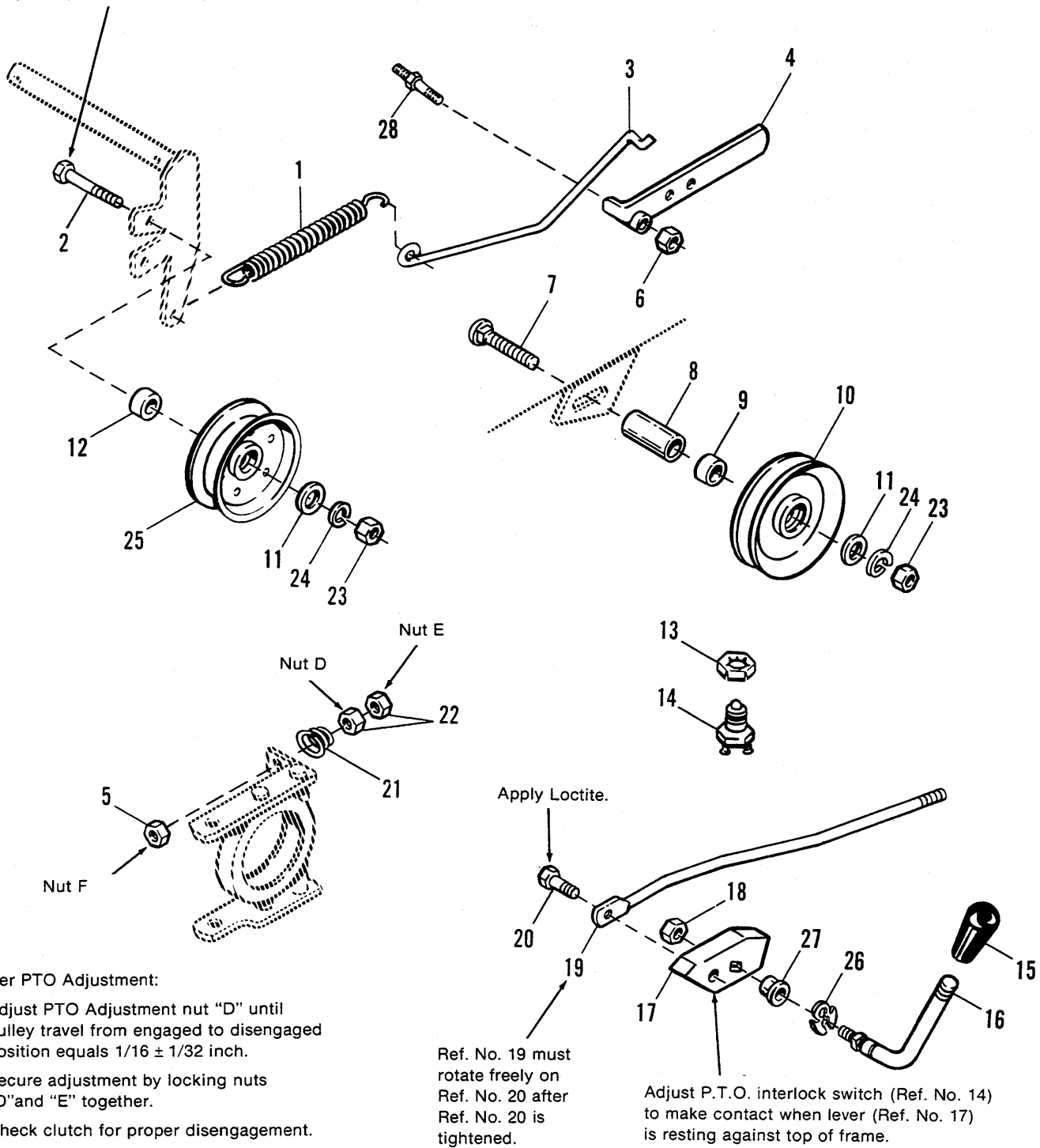
All Models

Transmission Group

Ref. No.	Part No.	Qty.	Description
1	1917372	2	NUT, Hex, Full, 5/16-18
2	1917356	11	LOCKWASHER, 5/16
3	1667171	1	SUPPORT, Spring
4	1921333	7	CAPSCREW, Hex Hd., 5/16-18 x 1
5	901652	1	PLUG, Pipe
6	154269*	2	SEAL
7	1650429	1	GEAR CASE ASSY., (Incl. Ref. Nos. 10, Qty 1; 28, Qty 1 & 37)
8	1932849	1	LOCKNUT, 3/8, Rigid Conduit
9	1927609	2	PIN, Roll, 3/8 x 1
10	1652469	2	BEARING
11	154097	4	WASHER
12	166041	1	SPACER, Axle, L.H.
13	1670857	1	GEAR, Drive
14	166017	1	RING, Retaining
15	1960184	2	WASHER
16	176236	1	PINION & SHAFT ASSY.
17	166012	1	SHAFT, Intermediate
18	166043*	1	GASKET
19	1653120	2	BUSHING
20	1670864	1	TUBE ASSY., Axle (Incl. Ref. No. 19)
21	154096	2	KEY
22	912808	1	FITTING, Grease
23	1650427	1	COVER ASSY., Grease Case (Incl. Ref. Nos. 10, Qty 1; 27 & 28, Qty 1)
24	1673452	1	PLUG, Pipe
25	154268	2	RING, Retaining
26	166021*	1	SEAL
27	166019	1	BEARING
28	166018	2	BEARING, Needle
29	960187	1	WASHER
30	1650775	1	SHAFT, Brake
31	166014	1	KEY
32	1651078	1	WASHER
33	960183	2	WASHER
34	176243	1	PINION
35	176980	2	RING, Retaining
36	166004	1	GEAR
37	154271	1	BEARING, Needle
38	1673453	1	ELBOW, Street
39	901493	1	NIPPLE, Pipe
40	1667346	1	CAP, Pipe
41	172899	1	VALVE, Relief
42	901825	1	BUSHING, Pipe
43	901677	1	ELBOW, Pipe
44	901480	1	NIPPLE, Pipe
45	1921978	4	CAPSCREW, Hex Hd., 5/16-18 x 2
46	166040	1	SPACER, Axle, R.H.

* Gasket Seal Kit, part no. 1685198 includes Ref. Nos. 6, 18, 26 and 1651703 & 1652219.

Mount in upper hole for
mower drive. Use lower hole
for snowthrower mounting
(see Operator's Manual).

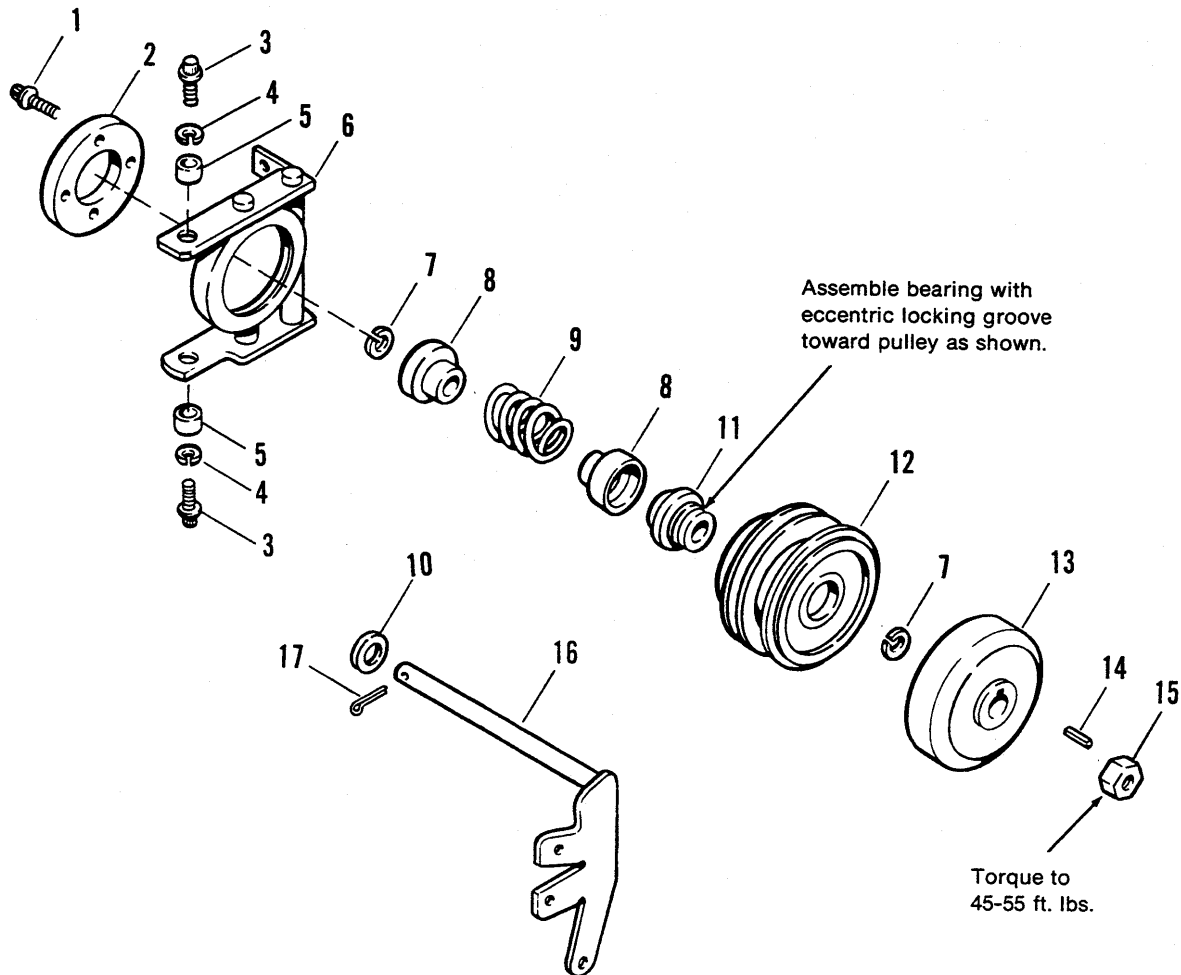


All Models

PTO Control Group

Ref. No.	Part No.	Qty.	Description
1	1666786	1	SPRING, Tension
2	1923701	1	CAPSCREW, Hex Hd., 3/8-16 x 2
3	1671424	1	ROD, Tension
4	164155	1	HANDLE ASSY.
5	1923362	1	LOCKNUT, Hex, 5/16-18
6	1924058	1	LOCKNUT, Hex, 7/16-14
7	1931353	1	BOLT, Carriage, 3/8-16 x 1-3/4
8	1667811	1	SPACER
9	1666294	1	SPACER
10	1665440	1	PULLEY ASSY., w/ Bearings
11	1924940	2	WASHER, Plain, 3/8
12	1667812	1	SPACER
13	1930647	1	NUT, Pal
14	177522	1	SWITCH, Interlock
15	1713843*	1	KNOB, Soft
16	1713854*	1	HANDLE, PTO, Clutch
17	173991	1	LEVER
18	1930651	1	LOCKNUT, Hex, 3/8-16
19	1671323	1	ROD ASSY., Control
20	1960072	1	CAPSCREW
21	157127	1	SPRING
22	1917372	2	NUT, Hex, Full, 5/16-18
23	1916950	2	NUT, Hex, Full, 3/8-16
24	1916965	2	LOCKWASHER, 3/8
25	1606554	1	PULLEY, Idler
26	1703805*	1	KLIPRING, 1/2
27	1704505*	1	BUSHING
28	157273	1	STUD

* Mfg. Nos. 1692143 & 1692144 order kit, part no. 1686648. Kit includes Ref. Nos. 15, 16, 26 & 27.

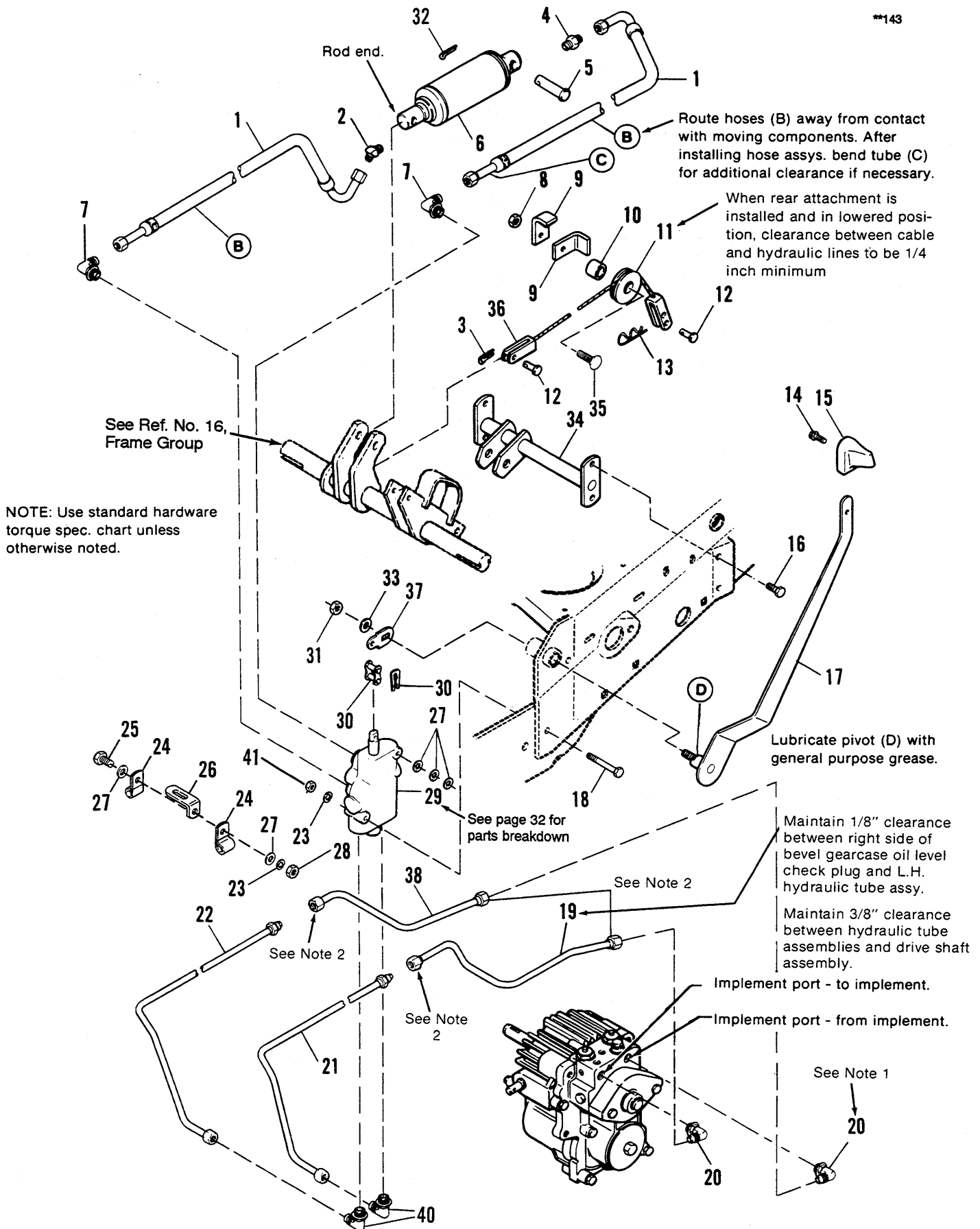


NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

PTO Cone Clutch Group

Ref. No.	Part No.	Qty.	Description
1	920036	4	CAPSCREW, Socket Hd., 1/4-20 x 5/8
2	173957	1	DISC, Brake
3	1960086	2	SCREW, Thread Forming
4	1917356	2	LOCKWASHER, 5/16
5	171371	2	SPACER
6	1650906	1	PIVOT ASSY.
7	172206	2	RING, Retaining
8	1671339	2	GUIDE, Spring
9	171772	1	SPRING
10	1960020	1	WASHER
11	1650254	1	BEARING ASSY.
12	1650304	1	PULLEY
13	174862	1	PLATE ASSY., Clutch
14	905123	1	KEY
15	1922133	1	LOCKNUT, Hex, 3/4-16
16	1666781	1	ARM ASSY., Pivot
17	1918459	1	PIN, Cotter, 3/16 x 1-1/2

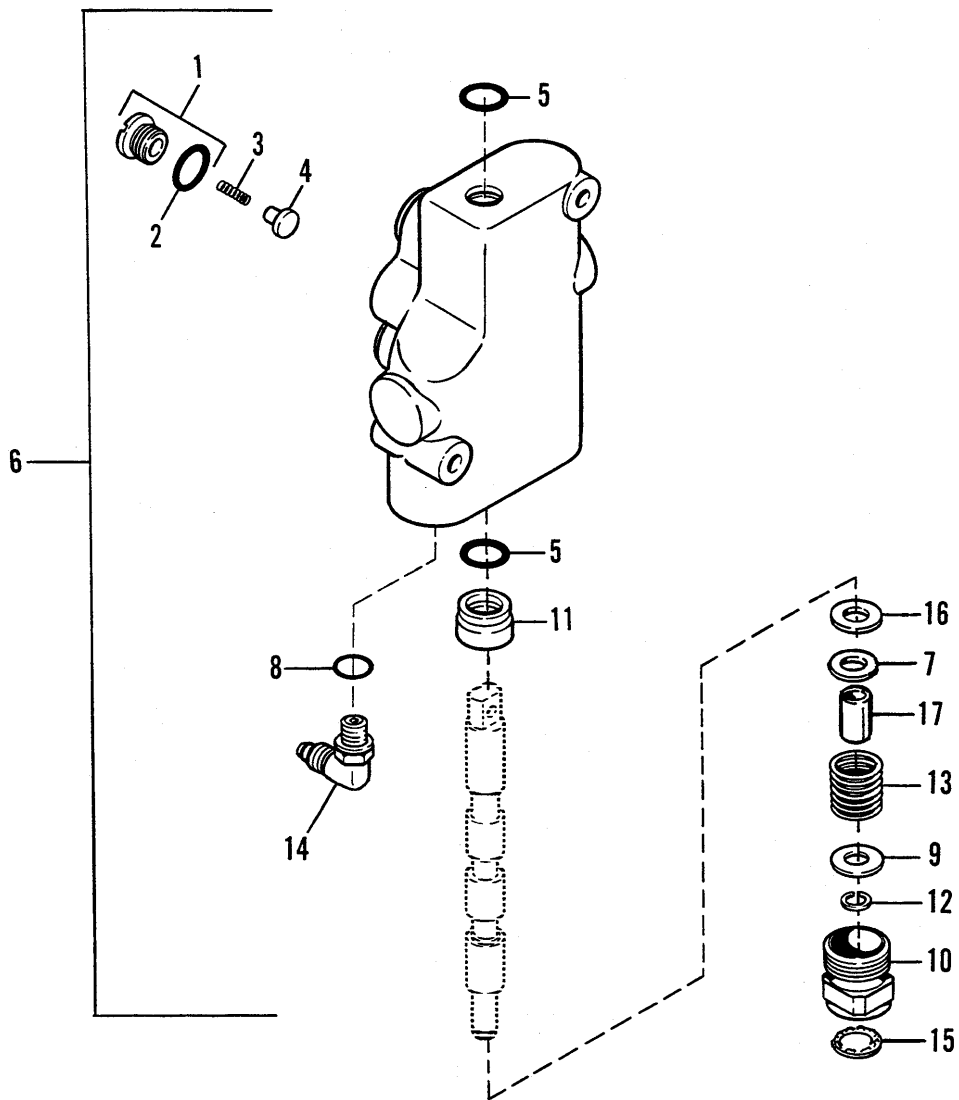


Ref. No.	Part No.	Qty.	Description
1	1667408	2	HOSE, Hydraulic
2	935046	1	ELBOW, 45° Male
3	1918447	1	PIN, Cotter, 3/32 x 3/4
4	919766	1	CONNECTOR, 37° Male
5	171690	2	PIN
6	1685347	1	CYLINDER, Hydraulic (Incl. Ref. No. 2)
7	928812	2	ELBOW, Adjustable, 37°
8	1928731	1	LOCKNUT, Hex, Jam, 3/8-16
9	174723	2	GUARD, Cable
10	157081	1	SPACER
11	172725	1	PULLEY
12	1708298	2	PIN
13	1918196	1	CLIP, Spring
14	1960106	1	SCREW, Hex, Washer Hd., Plastite, 1/4-20 x 1
15	1713847	1	KNOB, Soft (All except Mfg. Nos. 1692143 & 1692144)
	171165	1	KNOB, (Mfg. Nos. 1692143 & 1692144)
16	1923683	4	SCREW, Hex, Washer Hd., Taptite, 3/8-16 x 3/4
17	1667270	1	LEVER ASSY.
18	1921963	2	CAPSCREW, Hex Hd., 1/4-20 x 2
19	1667437	1	TUBE ASSY.
20	1675789	2	FITTING, Hydraulic
21	1668883	1	TUBE ASSY.
22	1668882	1	TUBE ASSY.
23	1916964	3	LOCKWASHER, 1/4
24	1708007	2	CLAMP
25	1921961	1	CAPSCREW, Hex Hd., 1/4-20 x 1-1/4
26	108186	1	CLIP
27	921319	5	WASHER, Plain, 1/4
28	1916622	2	NUT, Hex, Full, 1/4-20
29	1708009	1	CONTROL VALVE ASSY. (See following 2 pages)
30	171101	1	LINK, Connecting
31	1919439	1	NUT, Hex, Lock, 3/8-16
32	158544	1	BEARING
33	1924940	1	WASHER, Plain, 3/8
34	1667269	1	SUPPORT ASSY.
35	1960032	1	SCREW
36	1673700	1	CABLE ASSY.
37	1667261	1	BELLCRANK
38	1667435	1	TUBE ASSY.
39	1960033	2	CLIP, Hairpin
40	923905	2	FITTING, Hydraulic
41	1960294	2	NUT, Hex, Flange, Whizlock, 1/4-20

ASSEMBLY NOTES

Important: Take special care that no dirt or foreign material is allowed to enter hydraulic circuit during assembly of fittings.

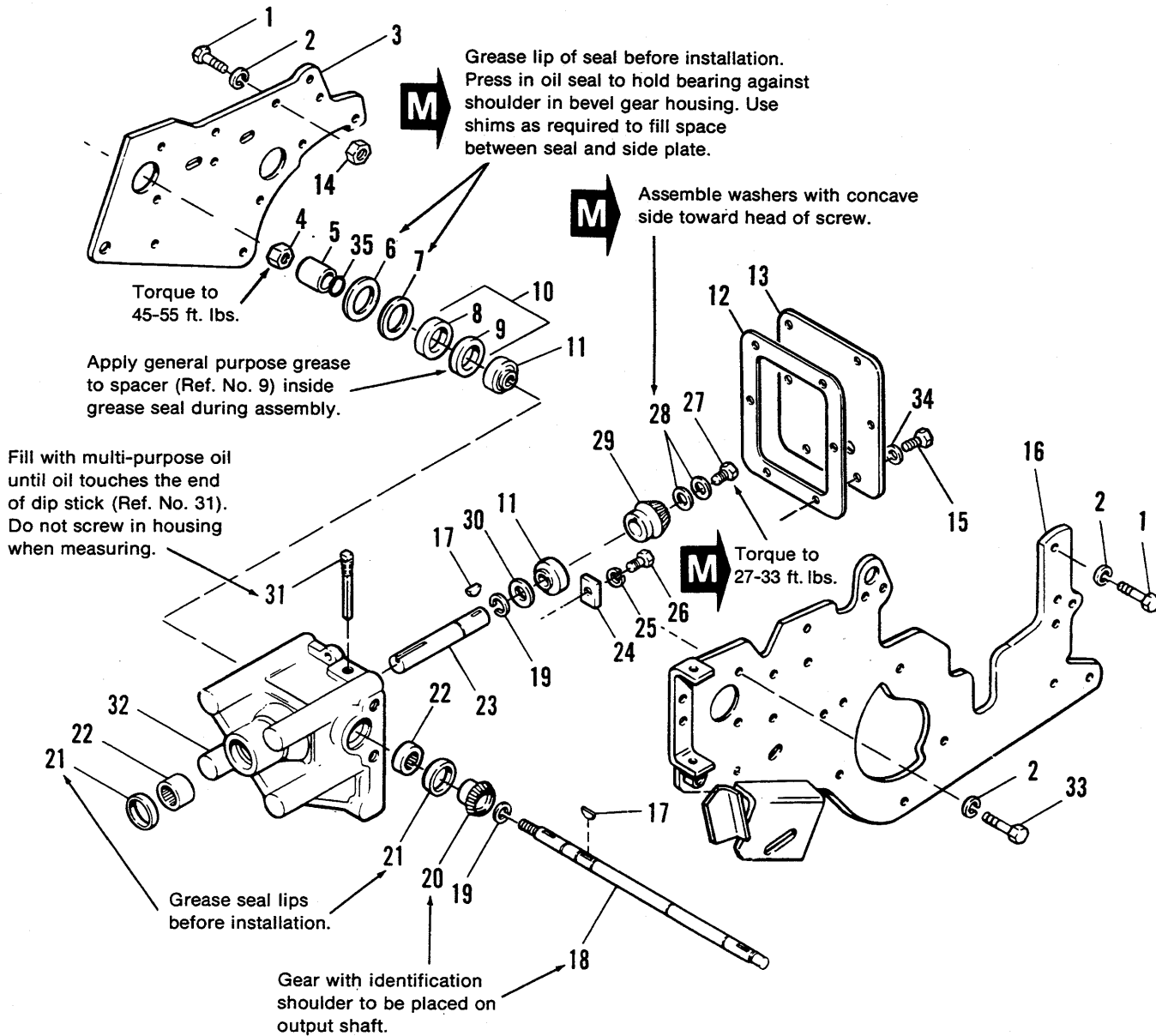
1. To install swivel fittings (Ref. No. 20), first lubricate O-ring with light oil. Then turn swivel nut until O-ring is seated. Turn fitting by hand to align with tube nut.
2. To install tubes, first align threaded fitting with tube nut. Then thread nut onto fitting and tighten. Hold fitting and turn nut with wrench to seal joint..



Control Valve Group

Ref. No.	Part No.	Qty.	Description
1	174131	1	PLUG ASSEMBLY
*2	174133	1	O-RING
3	174134	1	SPRING
4	174130	1	PLUNGER, Lift Check
*5	1679142	2	O-RING
6	1667410	1	VALVE ASSEMBLY
7	1652044	1	WASHER, Optional
*8	1667825	2	O-RING
9	174143	1	WASHER
10	1667822	1	CAP
11	174137	1	BUSHING
12	1667824	1	RING, Retaining
13	1667823	1	SPRING
14	923905	2	ELBOW
15	1664987	1	BUTTON, Insert
16	1652045	1	WASHER
17	1668021	1	SPOOL

* Order Seal Kit, Part No. 1667826 (Includes Ref. No. 2, 5, & 8)

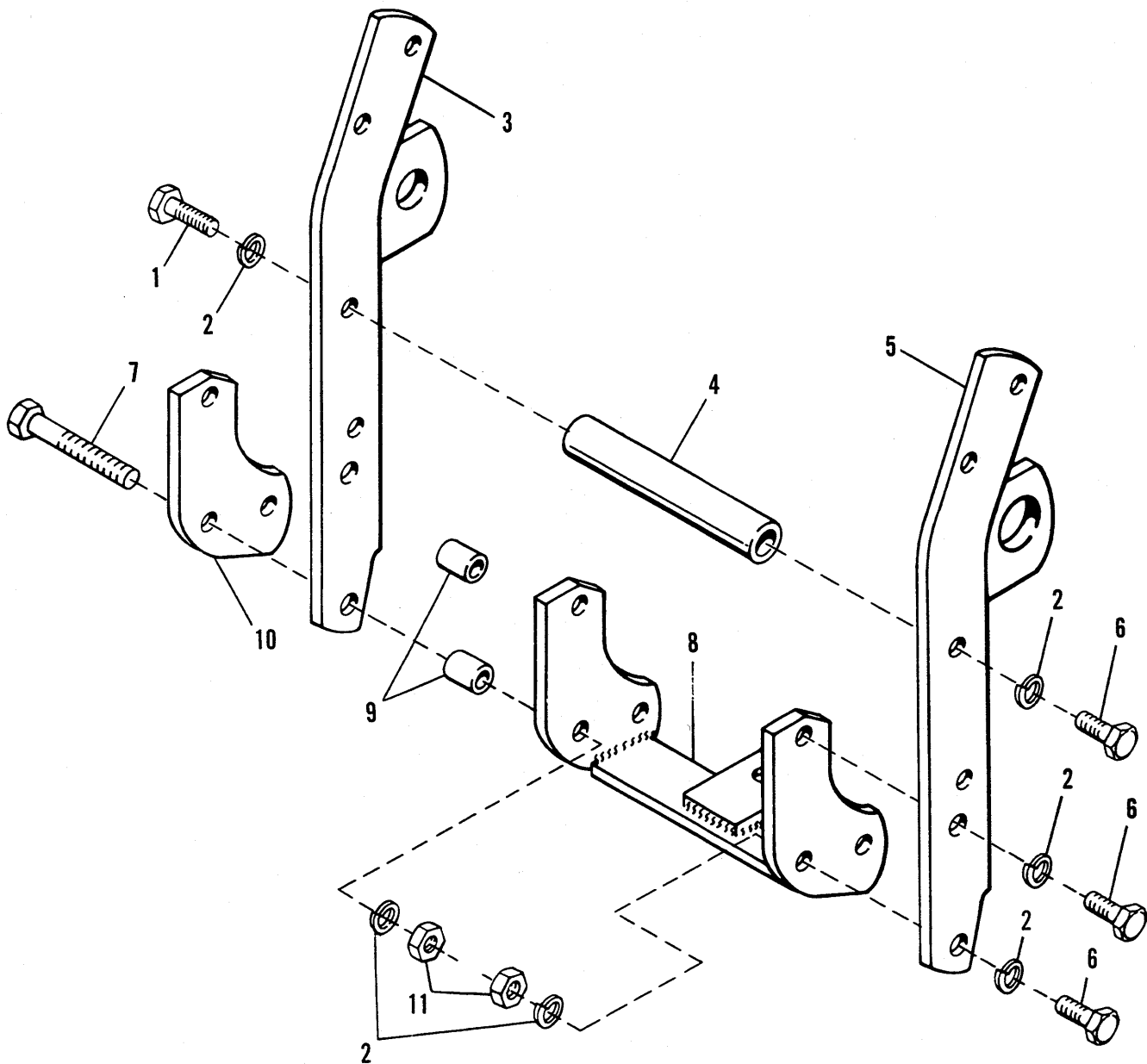


NOTE: Use standard hardware torque spec. chart unless otherwise noted.

All Models

Bevel Gear & Side Plate Group

Ref. No.	Part No.	Qty.	Description
1	1920677	6	CAPSCREW, Hex Hd., 7/16-14 x 1-1/4
2	1918199	12	LOCKWASHER, 7/16
3	1650414	1	PLATE, Side, R.H.
4	1922133	1	LOCKNUT, Hex, Jam, 3/4-16
5	171792	1	SPACER
6	171790	5	SHIM
7	171791	1	SHIM
8	1685088	1	SEAL, Oil
9	1663111	1	SPACER, Seal, Oil
10	1685088	1	REPAIR KIT, Seal (Incl. Ref. Nos. 8 & 9)
11	172256	2	BEARING, Ball
12	154282	1	GASKET
13	178104	1	COVER
14	1918213	3	NUT, Hex, 7/16-14 x 1
15	1921959	6	CAPSCREW, Hex Hd., 1/4-20 x 5/8
16	1671667	1	PLATE ASSY., Side, L.H.
17	905123	2	KEY, Woodruff, #9
18	1685054	1	SHAFT, Driven (Incl. Ref. Nos. 4 & 17)
19	172206	2	RING, Retaining
20	171796	1	GEAR, Bevel, Driven
21	118117	2	SEAL, Oil
22	154279	2	BEARING, Needle
23	172750	1	SHAFT, Driver
24	154040	1	PLATE, Bearing, Clamp
25	1917356	1	LOCKWASHER, 5/16
26	1925205	1	CAPSCREW, Hex Hd., 5/16-18 x 5/8
27	1961022	1	CAPSCREW, Hex Hd., 5/16-18 x 3/4
28	177649	2	WASHER
29	172752	1	GEAR, Bevel, Driver
30	172753	1	WASHER
31	178105	1	PLUG ASSY.
32	1656877	1	HOUSING, Bevel Gear
33	1920676	6	CAPSCREW, Hex Hd., 7/16-14 x 1
34	1916964	6	LOCKWASHER, 1/4, I.D.
35	176111	1	"O" RING

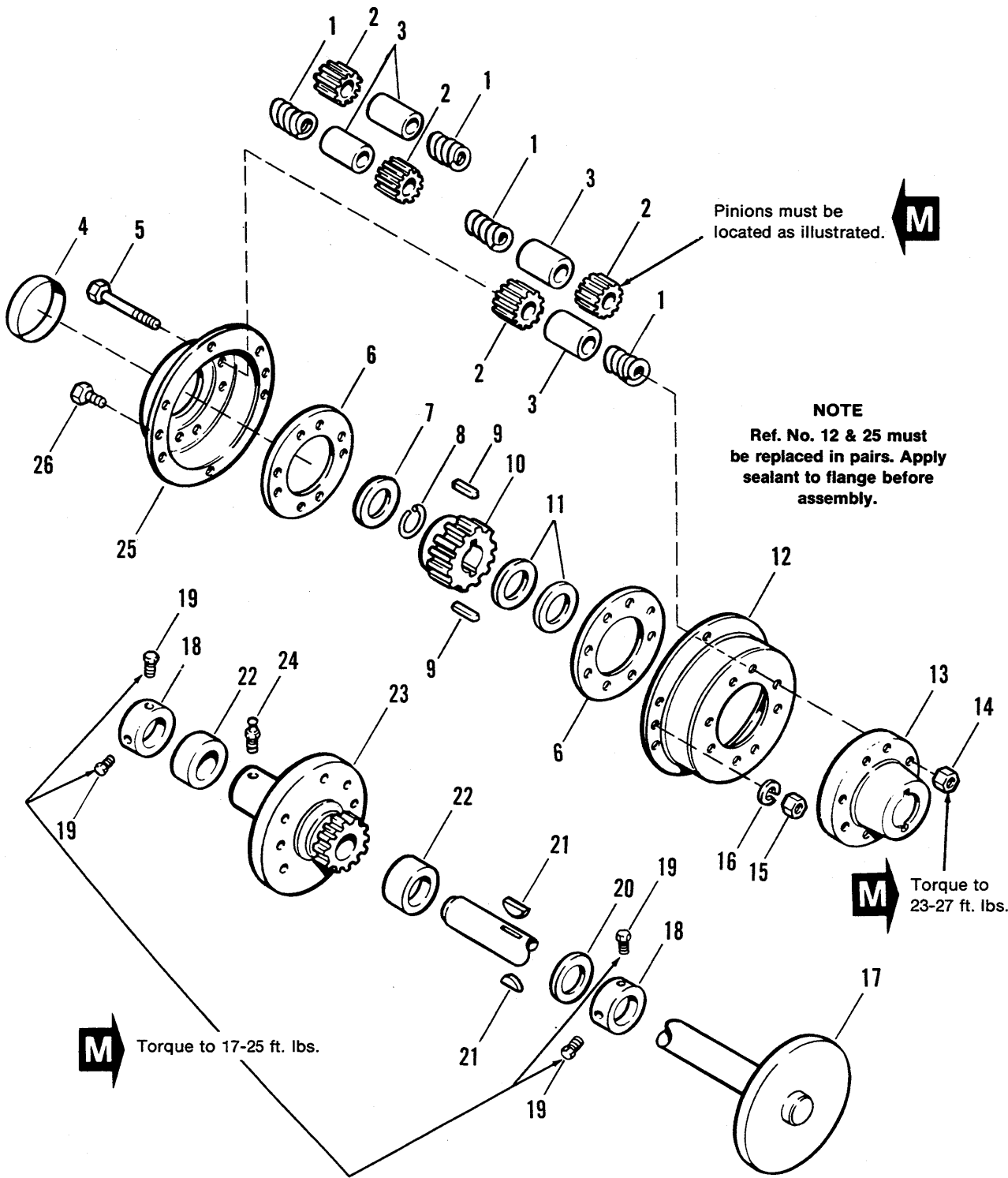


NOTE: Use standard hardware
torque spec. chart unless
otherwise noted.

All Models

Draw Bar Group

Ref. No.	Part No.	Qty.	Description
1	1923027	1	CAPSCREW, Hex Hd., 7/16-14 x 1-3/4
2	1918199	6	LOCKWASHER, 7/16
3	166072	1	BAR ASSY., Upright
4	166110	1	SPACER
5	166206	1	BAR ASSY., Upright
6	1920677	3	CAPSCREW, Hex Hd., 7/16-14 x 1-1/4
7	1926110	2	CAPSCREW, Hex Hd., 7/16-14 x 2-3/4
8	166074	1	BAR ASSY., Draw
9	1608759	2	SPACER
10	166075	1	PLATE
11	1918213	4	NUT, Hex, Full, 7/16-14

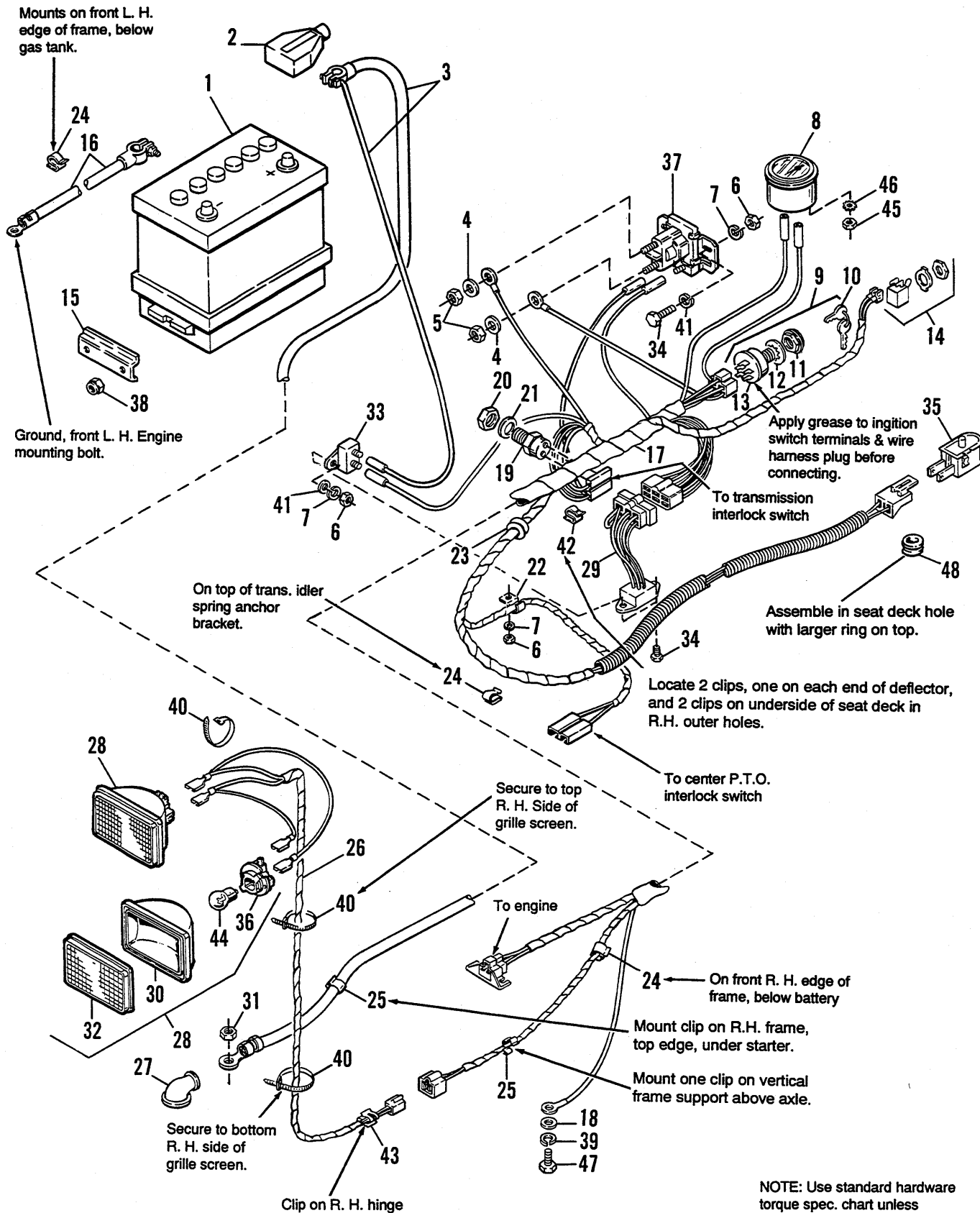


All Models

Rear Axle & Differential Group

Ref. No.	Part No.	Qty.	Description
*1	162085	8	SPRING
*2	158574	8	PINION, Differential
*3	121083	8	SPINDLE, Differential
*4	121190	1	SEAL, Cover
*5	1921972	8	CAPSCREW, Hex Hd., 3/8-16 x 2-1/2
*6	171517	2	RING, Spacer
7	960169	1	WASHER
8	154291	1	RING, Retaining
9	157120	2	KEY, Drive
10	177041	1	GEAR, Differential
11	960190	2	WASHER
*12	171853	1	COVER, Differential
*13	164217	1	CARRIER, Differential
*14	1930651	8	LOCKNUT, Hex, 3/8-16
*15	1916622	6	NUT, Hex, Full, 1/4-20
*16	1916964	6	LOCKWASHER, 1/4
17	177900	1	AXLE ASSY., Rear
18	154065	2	COLLAR, Set
19	1928721	4	SETSCREW, 5/16-18 x 1/2
20	1960153	1	WASHER
21	930671	2	KEY, Hi-Pro
22	153068	2	BEARING
23	176945	1	HUB ASSY., Wheel, R.H.
24	915019	1	FITTING, Grease
*25	171854	1	COVER, Differential
*26	1921959	6	CAPSCREW, Hex Hd., 1/4-20 x 5/8
	1650519	1	DIFFERENTIAL SUBASSY. (See Note Below)

*NOTE: Differential Subassembly (1650519) Includes Ref. Nos. 1 - 6, 12 - 16, 25 & 26.

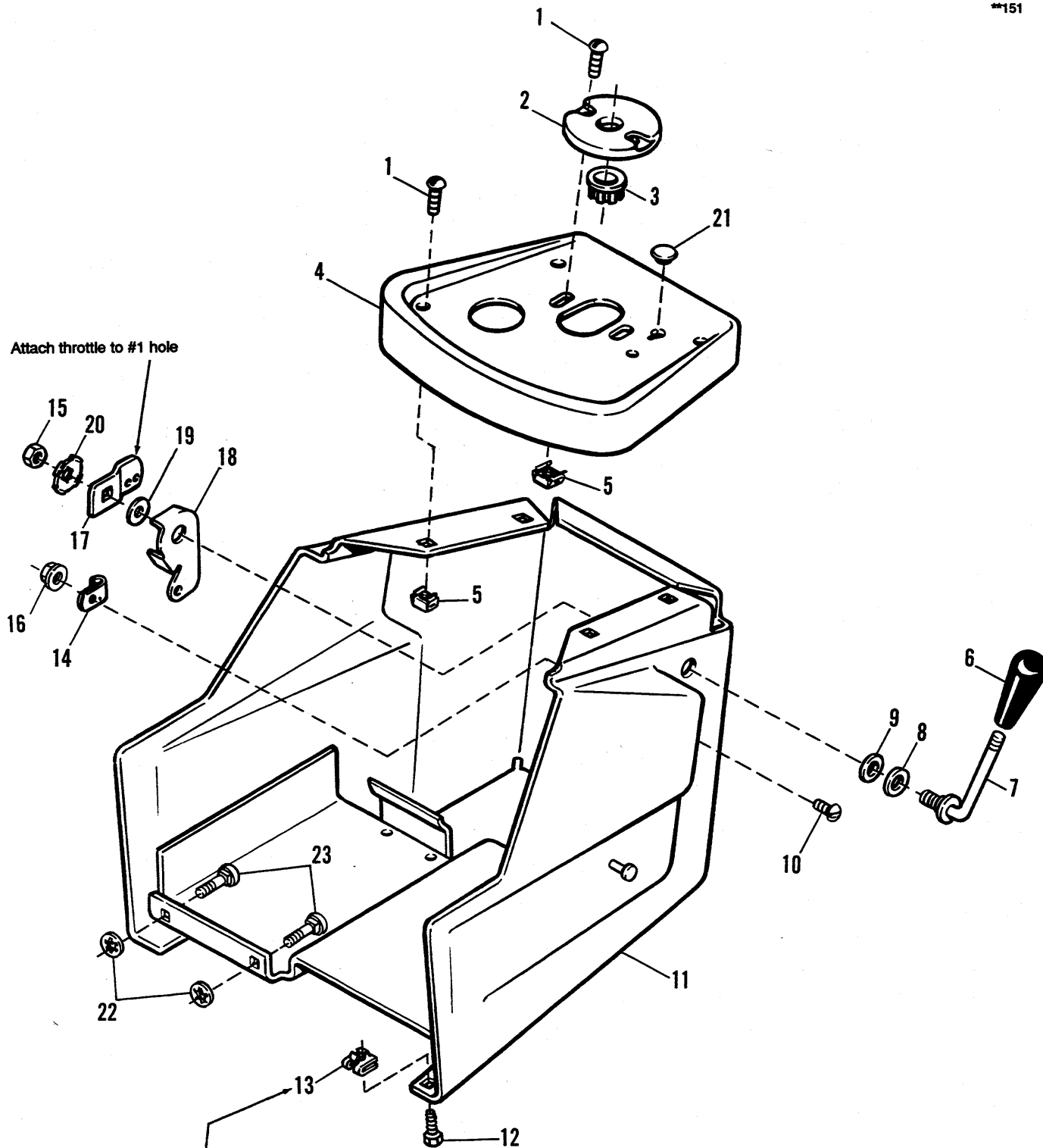


Electrical Group

Ref. No.	Part No.	Qty.	Description
1	1685058	1	BATTERY
2	1673698	1	INSULATING CABLE BOOT
3	1708730	1	CABLE (Battery to Solenoid)
4	1917356	2	LOCKWASHER, 5/16
5	1920263	2	NUT, Hex, 5/16-24
6	1916622	4	NUT, Hex, Full, 1/4-20
7	1916964	4	LOCKWASHER, 1/4
8	1603189	1	AMMETER
9	1686637	1	IGNITION SWITCH KIT (Mfg. Nos. 1692143, 1692144, See Note below) (Incl. Ref. Nos. 10, 11, 12 & 13)
10	1714054	1	KEY SET (2)
11	1714055	1	NUT, Adaptor
12	1960547	1	LOCKWASHER, Int., 5/8
13	*	1	SWITCH, Ignition (See Ref. No. 9)
14	122184	1	SWITCH, Toggle
15	171225	1	CLAMP
16	1714647	1	CABLE (Battery to Ground)
17	1708734	1	HARNESS ASSY.
18	1925125	1	WASHER, 15/32
19	177522	1	SWITCH, Interlock
20	1930647	1	PAL NUT
21	1926192	1	WASHER, 9/16
22	1932771	1	CLIP, Cable
23	172175	1	GROMMET
24	172434	3	CLIP, Tinnerman
25	172436	3	CLIP, Tinnerman
26	1674358	1	WIRE ASSY.
27	122023	1	COVER, Terminal
28	1674363	2	HEADLIGHT ASSY. (Incl. Ref. Nos. 30, 32, 36 & 44)
29	1707755	1	MODULE, Interlock
30	1677369	2	REFLECTOR, Housing
31	1960433	1	NUT, Hex, Flange Hd., M8 - 125
32	1677368	2	LENS, Clear
33	1665238	1	BREAKER, Circuit
34	1923341	2	CAPSCREW, Hex Hd., 1/4-20 x 3/4
35	1709359**	1	SWITCH, Seat
36	1677370	1	SOCKET, Bulb
37	1685290	1	SOLENOID, Starter
38	1919438	2	NUT, Elastic, 5/16-18
39	1918199	1	LOCKWASHER, 7/16
40	932747	3	TIE
41	1921319	2	WASHER, Special, 1/4
42	934683	4	CLIP, Wire
43	165073	1	CLIP, Speed Cable
44	1677371	1	BULB
45	1917415	1	NUT, Hex, #10-32
46	1922711	1	LOCKWASHER, Ext. Tooth
47	1920676	1	CAPSCREW, Hex Hd., 7/16-14 x 1
48	1701229	1	BUSHING, Snap

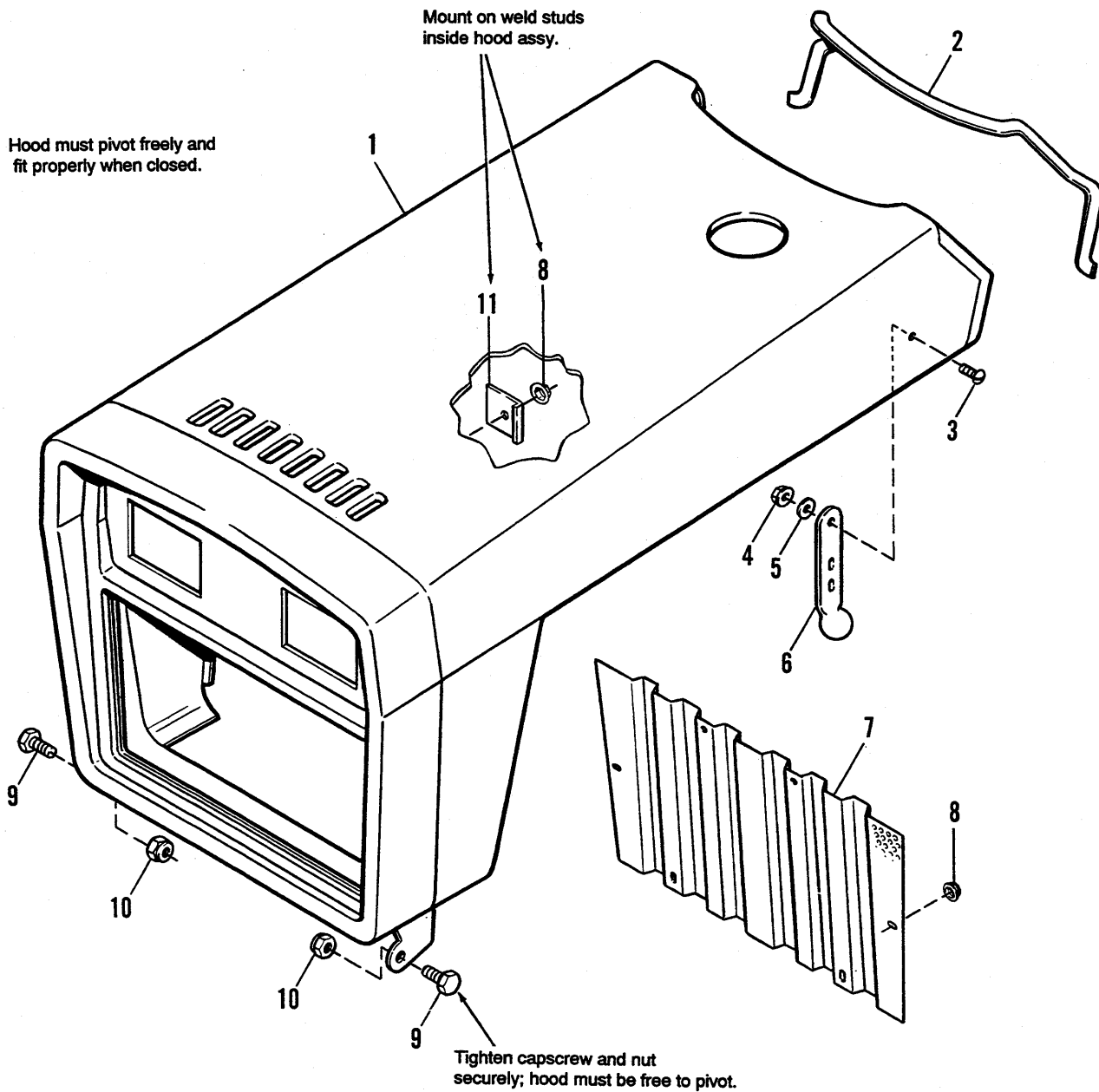
* Mfg. Nos. 1692143 & 1692144 order Ref. No. 9, part no. 1686637 when replacing ignition switch. Individual parts for early style ignition switch are: 1704348, Key Set; 1704346, Cover; 1704347, Nut; 918906, Lockwasher.

** Mfg. Nos. 1692143 & 1692144, order Seat Switch Kit 1685449. Kit includes early style seat plate, part no. 1707511, along with all necessary hardware.



Ref. No.	Part No.	Qty.	Description
1	1926025	6	SCREW, Machine, Round Hd., 1/4-20 x 1/2
2	172008	1	PLATE, Adjusting, Steering
3	157077	1	BUSHING
4	1651000	1	PANEL, Instrument
5	1917867	6	NUT, Tinnerman
6	1713844	1	KNOB, Soft (All except Mfg. Nos. 1692143 & 1692144)
	172038	1	KNOB, (Mfg. Nos. 1692143 & 1692144)
7	1713848*	1	HANDLE, Throttle Control
8	101025	1	WASHER
9	960171	1	WASHER
10	1930531	1	SCREW, Round Hd., #10-32 x 1/2
11	1685408	1	DASH ASSY. (Incl. Ref. Nos. 22 & 23)
12	1930561	9	SCREW, Hex, Self-tapping, #14AB x 3/4
13	1928703	6	NUT, Speed
14	1709060	1	CLIP, Control Cable
15	1930651	1	LOCKNUT, Hex, 3/8-16
16	1928919	1	NUT, Hex, Washer, #10-32
17	1666703	1	ARM, Throttle
18	103280	1	STOP, Throttle (Incl. Ref. Nos. 8 & 9)
19	159107	1	WASHER
20	1930665	1	LOCKWASHER, Dished Type, 3/8
21	177447	1	PLUG, Button
22	1933989	2	PUSH NUT
23	1931333	2	CARRIAGE BOLT, 5/16-18 x 3/4

* Mfg. Nos. 1692143 & 1692144 order Handle Kit, part no. 1686629.
Kit includes Ref. Nos. 6 & 7.



NOTE: Use standard hardware
torque spec. chart unless
otherwise noted.

All Models

Hood & Grille Group

Ref. No.	Part No.	Qty.	Description
1	1708749	1	HOOD & GRILLE ASSY.
2	1666163	1	MOULDING, Hood
3	1930531	2	SCREW, Truss Hd., #10-32 x 1/2
4	1930627	2	LOCKNUT, Hex, #10-32
5	1960096	2	WASHER, Special
6	171600	2	STRAP, Hood
7	1666148	1	SCREEN
8	1960517	10	LOCKNUT, Pal
9	1921210	2	CAPSCREW, Hex Hd., 3/8-16 x 1
10	1930651	2	LOCKNUT, Hex, 3/8-16
11	1675932	4	CLIP, Headlight Mounting

Locate seat plate (Ref. No. 22)
between upper hinge (19) and seat (1)
at rear screw locations.

Locate washer
(Ref. No. 4)
midway in
front slot between
upper hinge (19)
and seat (1) at
front screw
locations.

See Electrical Group

KIT
1685449

Latch clip to be
positioned perpendicular
to tractor - both sides.

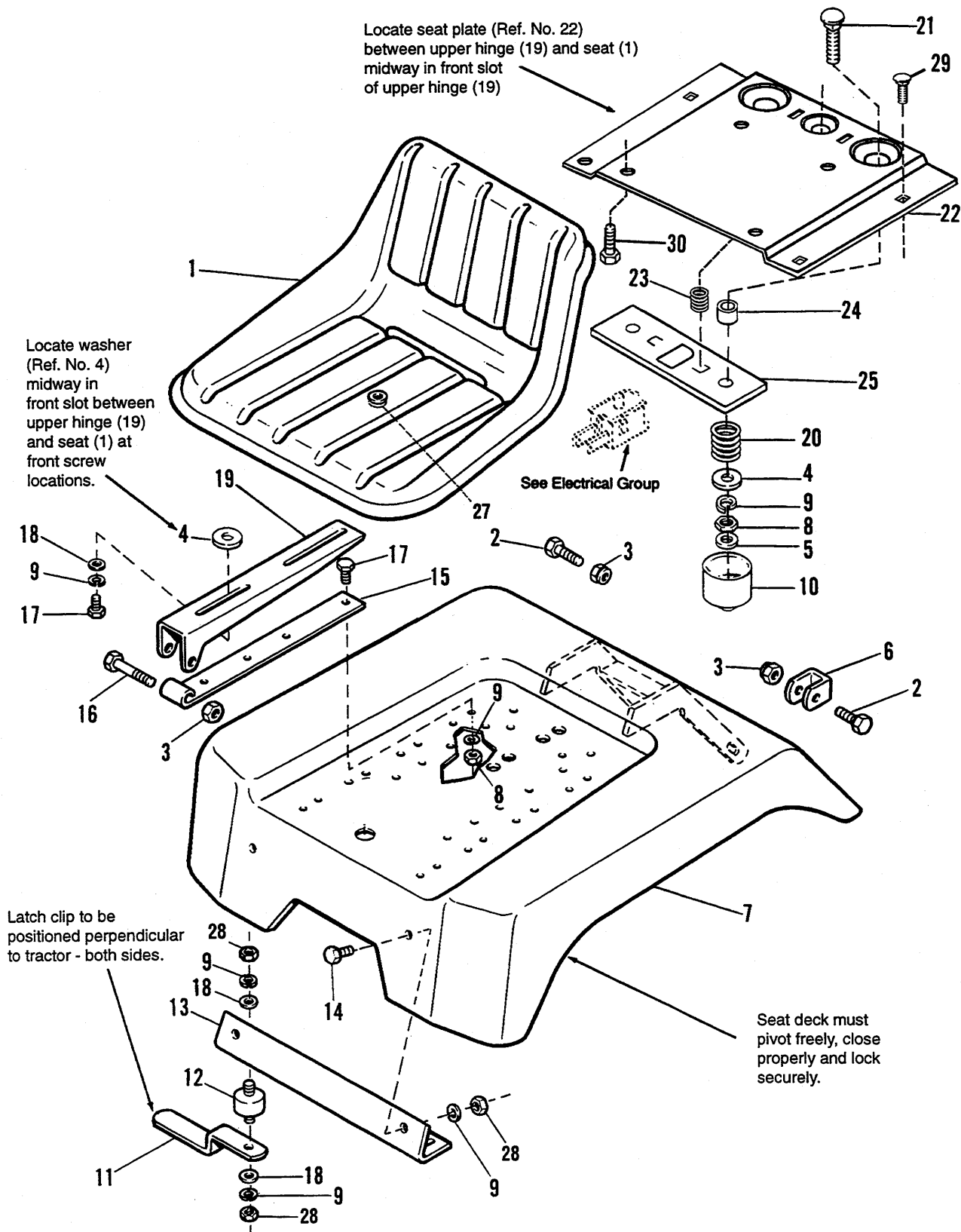
Seat deck must
pivot freely, close
properly and lock
securely.

NOTE: Use standard hardware
torque spec. chart unless
otherwise noted.

Seat & Deck Group

Ref. No.	Part No.	Qty.	Description
1	1679332	1	SEAT ASSY.
2	1920415	2	CAPSCREW, Hex Hd., 3/8-16x1-1/4
3	1930651	4	LOCKNUT, Hex, 3/8-16
4	1933468	4	WASHER
5	1960201	2	WASHER
6	1607870	1	STOP, Seat Deck
7	1679334	1	DECKASSY., Seat
8	1917372	14	NUT, Hex, Full, 5/16-18
9	1917356	18	LOCKWASHER, 5/16
10	1704724	2	COVER, Spring
11	1606823	2	CLIP
12	1666744	2	CONNECTOR, Cushion
13	164029	1	BRACKET, Seat Deck, Front
14	1925205	2	CAPSCREW, Hex Hd., 5/16-18x5/8
15	1666737	2	HINGE, Lower
16	1923701	2	CAPSCREW, Hex Hd., 3/8-16 x 2
17	1921332	10	CAPSCREW, Hex Hd., 5/16-18x3/4
18	1919326	8	WASHER, Plain, 5/16
19	1701559	2	HINGE, Upper
20	1704728	2	SPRING
21	1931337	2	CARRIAGE BOLT, 5/16-18x 1-1/2
22	1707511	1	PLATE, Seat
23	1704402	2	SPRING
24	1707571	2	SPACER
25	1707459	1	PLATE, Switch

NOTE: Ref. Nos. 4, 9 (Qty. 4), and 20 - 27 are included in Seat Switch Kit 1685449



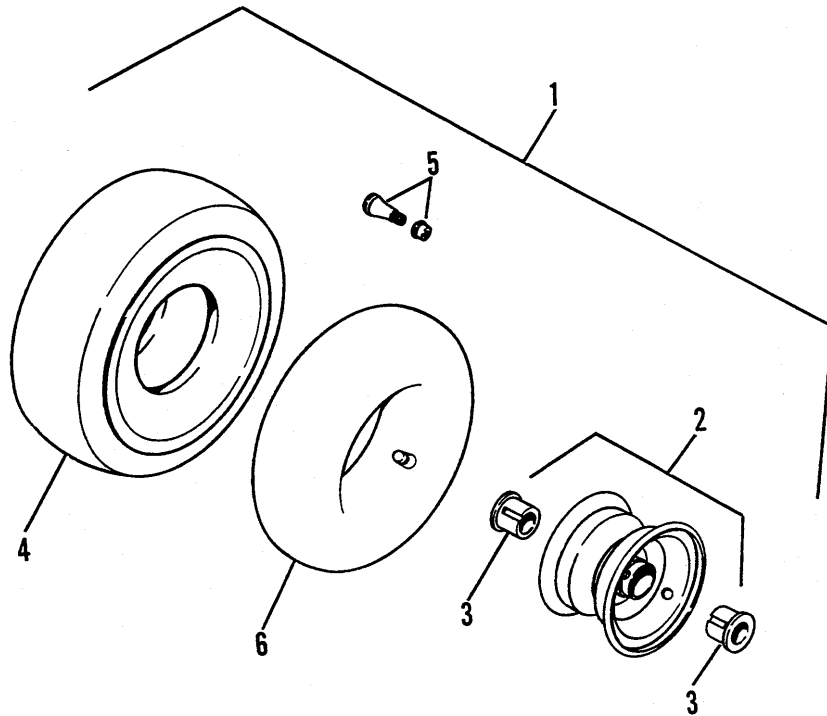
Mfg. Nos. 1692450, 1692452, 1692503

Seat & Deck Group

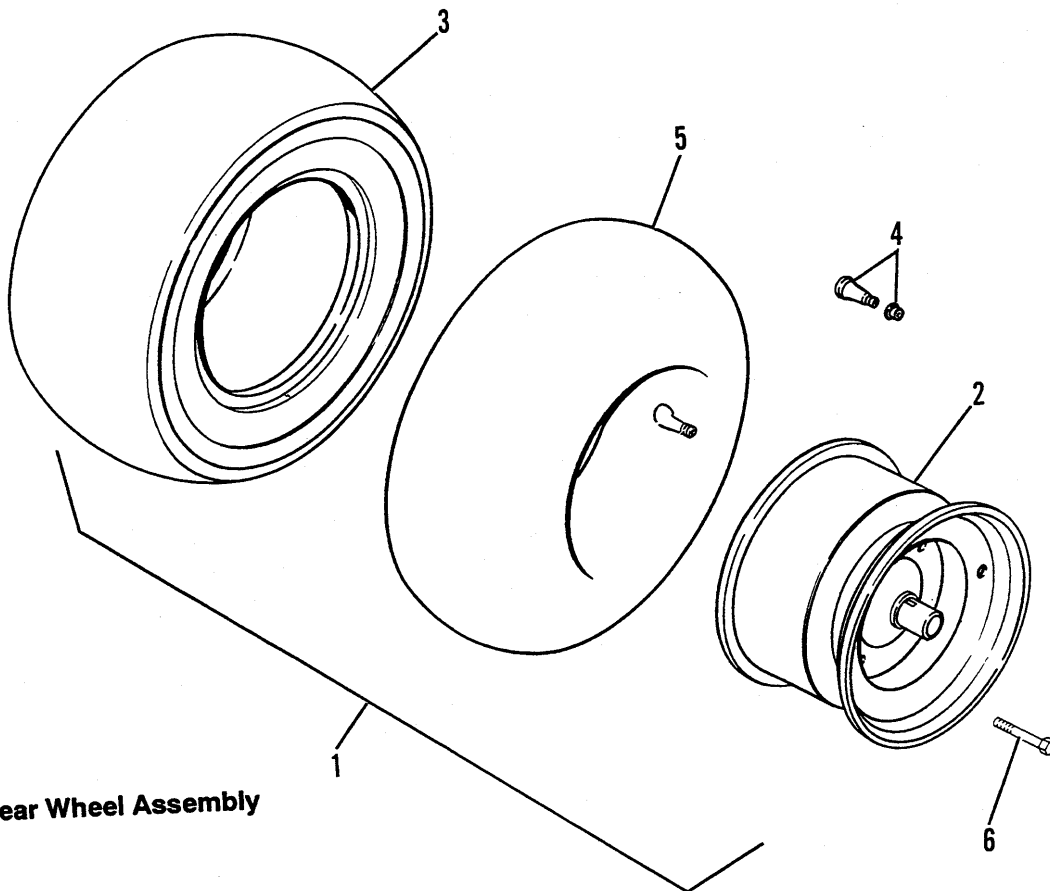
Ref. No.	Part No.	Qty.	Description
1	1713840*	1	SEAT ASSY. (Incl. Ref. No. 26)
2	1920415	2	CAPSCREW, Hex Hd., 3/8-16x1-1/4
3	1930651	4	LOCKNUT, Hex, 3/8-16
4	1933468	4	WASHER
5	1960201	2	WASHER
6	1607870	1	STOP, Seat Deck
7	1679334	1	DECK ASSY., Seat
8	1917372	12	NUT, Hex, Full, 5/16-18
9	1917356	12	LOCKWASHER, 5/16
10	1704724	2	COVER, Spring
11	1606823	2	CLIP
12	1666744	2	CONNECTOR, Cushion
13	164029	1	BRACKET, Seat Deck, Front
14	1925205	2	CAPSCREW, Hex Hd., 5/16-18x5/8
15	1666737	2	HINGE, Lower
16	1923701	2	CAPSCREW, Hex Hd., 3/8-16 x 2
17	1921332	6	CAPSCREW, Hex Hd., 5/16-18x3/4
18	1919326	8	WASHER, Plain, 5/16
19	1701559	2	HINGE, Upper
20	1704728	2	SPRING
21	1931337	2	CARRIAGE BOLT, 5/16-18x 1-1/2
22	1714167	1	PLATE, Seat
23	1704402	2	SPRING
24	1707571	2	SPACER
25	1707459	1	PLATE, Switch
26	1714483	1	COVER, Seat
27	1714494	4	PUSH NUT
28	1919438	6	NUT, Hex, Lock, Esna, 5/16-18
29	1931333	4	CARRIAGE BOLT, 5/16-18 x 3/4
30	1934665	4	SCREW, Hex, Whizlock, 5/16-18 x 5/8

* Mfg. Nos. 1692143 & 1692144 can be converted to later style seat with Seat Kit, part no. 1686644. Kit includes Ref. Nos. 1, 18 (qty. 4), 22, 28 (qty. 4), 29 & 30.

Front Wheel Assembly

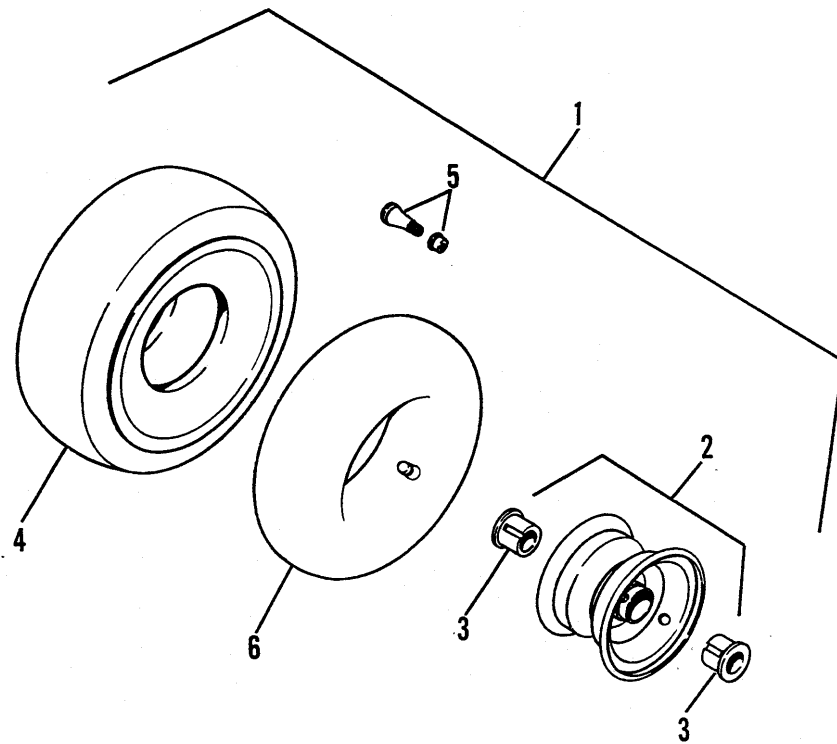


Rear Wheel Assembly

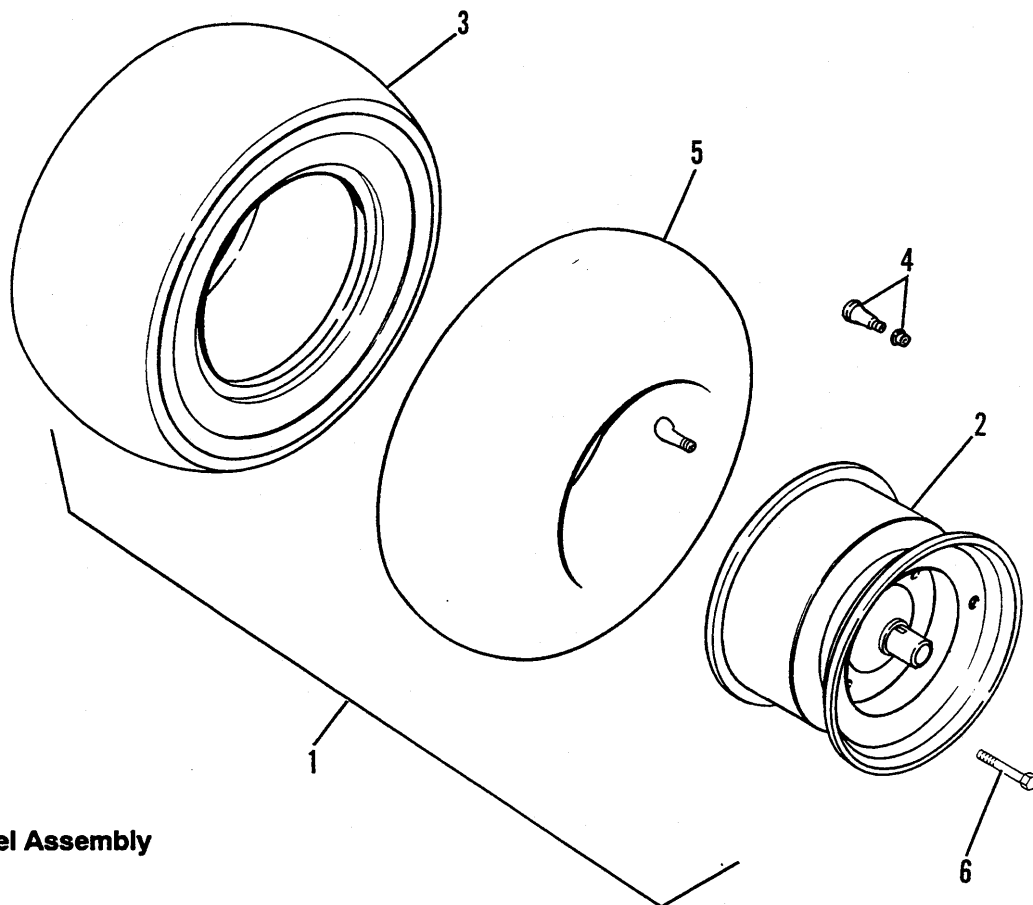


Ref. No.	Part No.	Qty.	Description
Front Wheel Assys. Equipped With Carlisle Tires			
1	171376	2	FRONT WHEEL & TIRE ASSY., 16 x 6.50-8 (Incl. Ref. Nos. 2 - 5)
2	171377	2	FRONT WHEEL ASSY. (Incl. Ref. No. 3)
3	154393	4	BEARING, Cup
4	1605965	2	TIRE, Carlisle, 16 x 6.50-8
5	172353	2	VALVE STEM & CAP
6	164247	2	TUBE (Service only)
Front Wheel Assys. Equipped With Dico Tires			
1	1713059	2	FRONT WHEEL & TIRE ASSY., 16 x 6.50-8, Turf (Incl. Ref. Nos. 2 - 5)
2	1713176	2	FRONT WHEEL ASSY. (Incl. Ref. No. 3)
3	154393	4	BEARING, Cup
4	1709959	2	TIRE, Dico, 16 x 6.50-8
5	172353	2	VALVE STEM & CAP
6	164247	2	TUBE (Service only)
Rear Wheel Assys. Equipped With Carlisle Tires			
1	173432	2	REAR WHEEL & TIRE ASSY., 23 x 10.50-12 (Incl. Ref. Nos. 2 - 4)
2	173430	2	REAR WHEEL ASSY.
3	1605967	2	TIRE, Carlisle, Tubeless, 23 x 10.50-12
4	172353	2	VALVE STEM & CAP
5	157638	2	TUBE (Service only)
6	8261100	10	BOLT, Hub
Rear Wheel Assys. Equipped With Dico Tires			
1	1709967	2	REAR WHEEL & TIRE ASSY., Rear, 23 x 10.50-12 (Incl. Ref. Nos. 2 - 4)
2	1709968	2	REAR WHEEL ASSY.
3	1709969	2	TIRE, Dico, Tubeless, 23 x 10.50-12
4	172353	2	VALVE STEM & CAP
5	157638	2	TUBE (Service only)
6	8261100	10	BOLT, Hub

Front Wheel Assembly



Rear Wheel Assembly



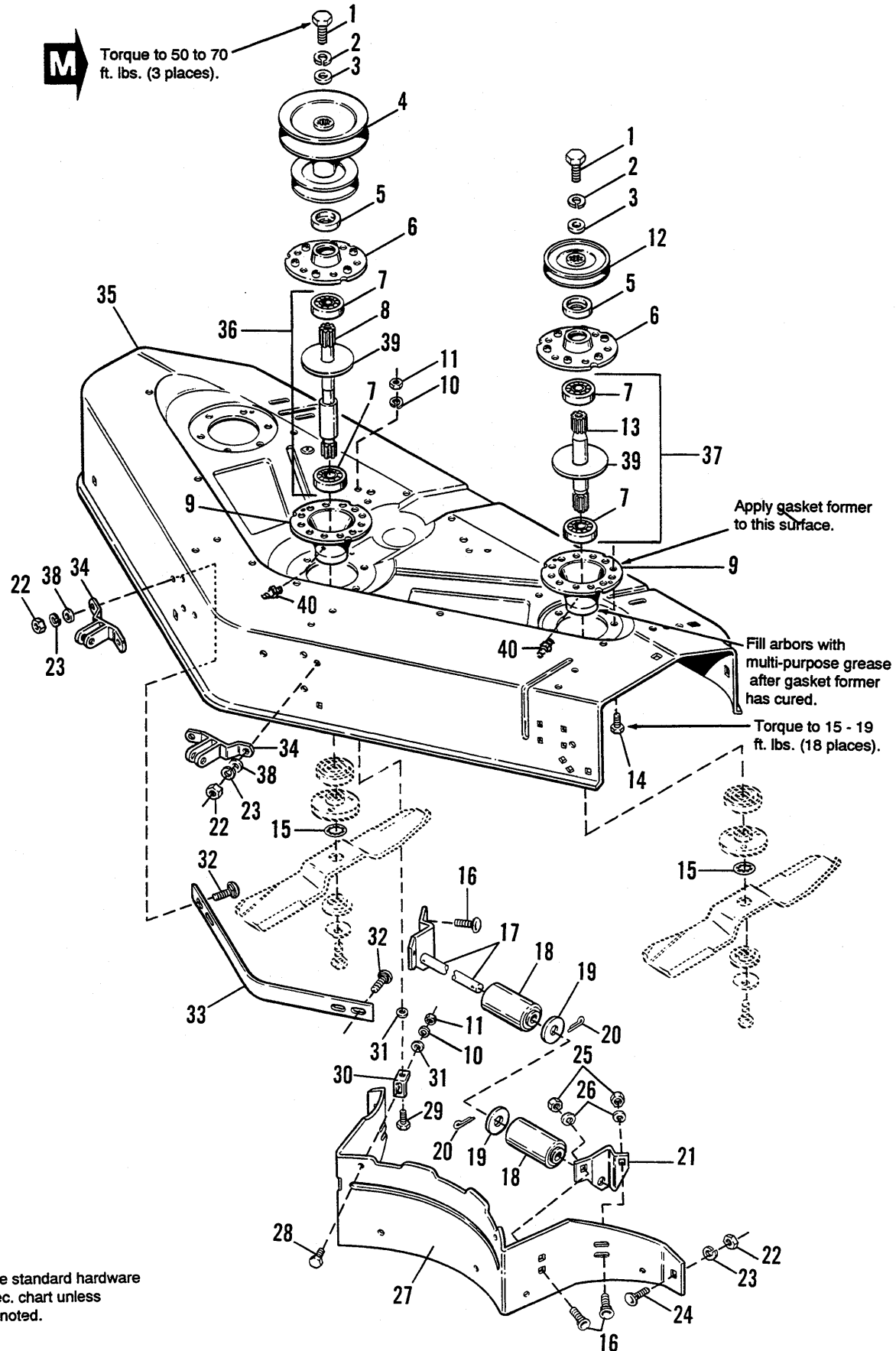
Mfg. No. 1692144, 1692450, 1692452, 1692503

Tire & Wheel Group - Metallic Gray

Ref. No.	Part No.	Qty.	Description
Front Wheel Assys. Equipped With Dico Tires			
1	1713060	2	FRONT WHEEL & TIRE ASSY., 16 x 6.50-8, Turf (Incl. Ref. Nos. 2 - 5)
2	1713177	2	FRONT WHEEL ASSY. (Incl. Ref. No. 3)
3	154393	4	BEARING, Cup
4	1709959	2	TIRE, Dico, 16 x 6.50-8
5	172353	2	VALVE STEM & CAP
6	164247	2	TUBE (Service only)

Rear Wheel Assys. Equipped With Dico Tires

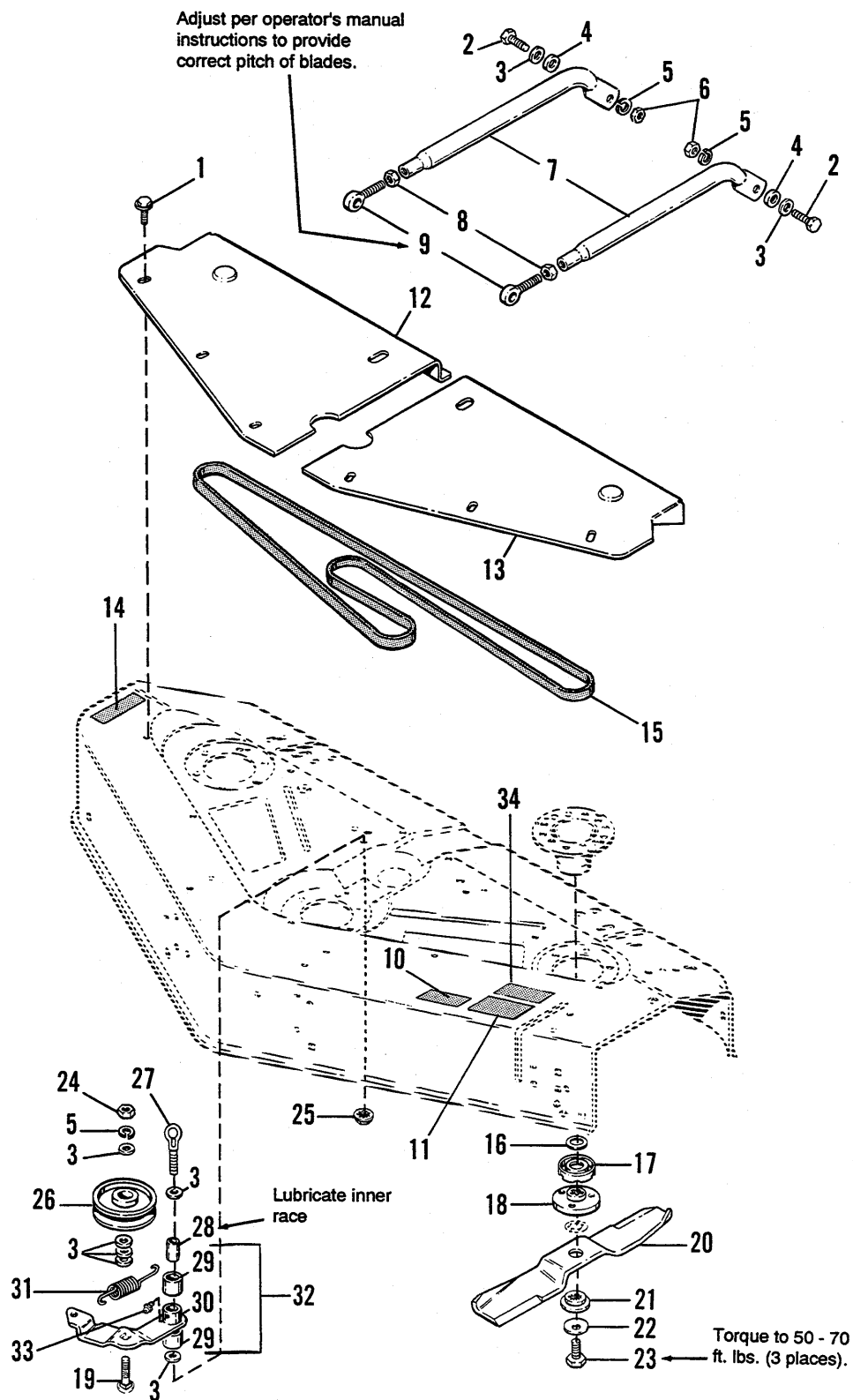
1	1709970	2	REAR WHEEL & TIRE ASSY., Rear, 23 x 10.50-12 (Incl. Ref. Nos. 2 - 4)
2	1709971	2	REAR WHEEL ASSY.
3	1709969	2	TIRE, Dico, Tubeless, 23 x 10.50-12
4	172353	2	VALVE STEM & CAP
5	157638	2	TUBE (Service only)
6	8261100	10	BOLT, Hub



Mfg. Nos. 1691218, 1691219, 1691220, 1691221

42" & 48" Mower Deck - Housing & Arbor Group

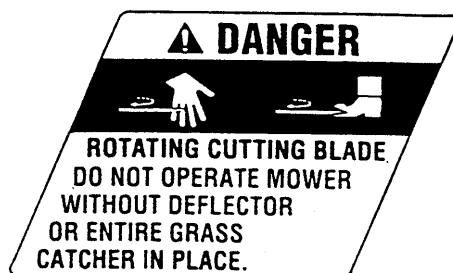
Ref. No.	Part No.	Qty.	Description
1	1923471	3	CAPSCREW, Hex Hd., 7/16-14 x 1-1/4
2	1918199	3	LOCKWASHER, 7/16
3	1933263	3	WASHER, 29/64 x 1-1/4 x 1/4
4	1679158	1	PULLEY ASSY., 42" Mower
	1679157	1	PULLEY ASSY., 48" Mower
5	1657969	3	SHIELD, Bearing, Upper
6	1655729	3	HOUSING, Arbor, Top
7	108202	6	BEARING
8	1679194	1	SHAFT, Arbor, Center
9	1703273	3	HOUSING, Arbor Bottom
10	1916964	4	LOCKWASHER, 1/4
11	1916622	4	NUT, Hex, Full, 1/4-20
12	1679161	2	PULLEY ASSY., Deck Drive
13	1676277	2	SHAFT, Arbor, Side (Incl. Ref. No. 15, Qty. 1)
14	1664847	18	SCREW, Hex, Washer Hd., Taptite, 5/16-18 x 3/4
15	1657528	3	RING, Self-Locking
16	1931333	4	CARRIAGE BOLT, 5/16-18 x 3/4
17	108426	1	BRACKET & SHAFT ASSY., 42" Mower
	108454	1	BRACKET & SHAFT ASSY., 48" Mower
18	1668513	2	ROLLER
19	1960020	2	WASHER, 21/32
20	1918458	2	PIN, Cotter
21	108224	1	BRACKET, Roller, L.H.
22	1916950	6	NUT, Hex, Full, 3/8-16
23	1916965	6	LOCKWASHER 3/8
24	1931350	2	CARRIAGE BOLT, 3/8-16 x 1
25	1917372	4	NUT, Hex, Full, 5/16-18
26	1917356	4	LOCKWASHER, 5/16
27	1675587	1	BAFFLE, 42" Mower
	1674774	1	BAFFLE, 48" Mower
28	1921959	2	CAPSCREW, Hex Hd., 1/4-20 x 5/8
29	1925592	2	SCREW, Thread Forming, 1/4-20 x 3/4
30	108186	2	CLIP, Baffle
31	1921319	2	WASHER, Plain, 9/32
32	1960268	4	CARRIAGE BOLT, 3/8-16 x 1-1/4
33	108366	1	BAR, Reinforcement
34	108219	2	BRACKET ASSY., Front
35	1685281	1	HOUSING, 42" Mower (Orange)
	61685281	1	HOUSING, 42" Mower (Black)
	1685282	1	HOUSING, 48" Mower (Orange)
	61685282	1	HOUSING, 48" Mower (Black)
36	1679195	1	SHAFT & BEARING ASSY., Center (Incl. Ref. Nos. 7 & 8)
37	1676278	2	SHAFT & BEARING ASSY., Side (Incl. Ref. Nos. 7 & 13)
38	1924940	4	WASHER, 13/32 I.D.
39	1707335	3	GASKET, Foam
40	1704314	3	FITTING, Grease



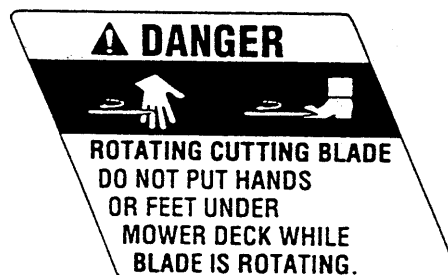
42" Mower Deck - Cover, Drive & Bail Group

Ref. No.	Part No.	Qty.	Description
1	1929000	10	SCREW, Hex, Taptite, 1/4-20 x 3/8
2	1921210	2	CAPSCREW, Hex Hd., 3/8-16 x 1
3	1924940	7	WASHER, Plain, 13/32
4	108717	2	SPACER
5	1916965	3	LOCKWASHER, 3/8
6	1916950	2	NUT, Hex, Full, 3/8-16
7	1651520	2	ARM, Adjusting
8	1919262	2	NUT, Hex, Jam, 1/2-20
9	157215	2	EYEBOLT
10	1709067	1	DECAL, Belt Adjustment
11	1704277	1	DECAL, Danger, Deflector in Place
12	1676096	1	COVER, R.H. (Orange)
	61676096	1	COVER, R.H. (Black)
13	1676095	1	COVER, L.H. (Orange)
	61676095	1	COVER, L.H. (Black)
14	1704276	1	DECAL, Danger, Rotating Blade
15	1656960	1	V-BELT, Arbor Drive
16	1700230	3	WASHER, Shim
17	1700229	3	SHIELD, Grass
18	1655777	3	ADAPTER, Blade
19	1960268	1	CARRIAGE BOLT, 3/8-16 x 1-1/4
20	1679917	3	BLADE, 42" Mower
21	1679711	3	WASHER, Spline
22	1656916	3	WASHER, Spring
23	1923491	3	CAPSCREW, Hex Hd., 7/16-14 x 1
24	1917421	1	NUT, Hex, Jam, 3/8-16
25	1928352	1	NUT, Hex, Flange Whizlock, 3/8-16
26	1704926	1	PULLEY ASSY., Idler
27	171815	1	EYEBOLT
28	1674669	1	SPACER
29	1676148	2	BUSHING
30		1	LEVER ASSY., Idler (Order Ref. No. 32)
31	1656936	1	SPRING
32	1704659	1	LEVER ASSY., Idler (Incl. Ref. No. 29, 30 & 33)
33	912808	1	FITTING, Grease, 1/4 - 28
34	1704383	1	DECAL, Cutting Width, 42"

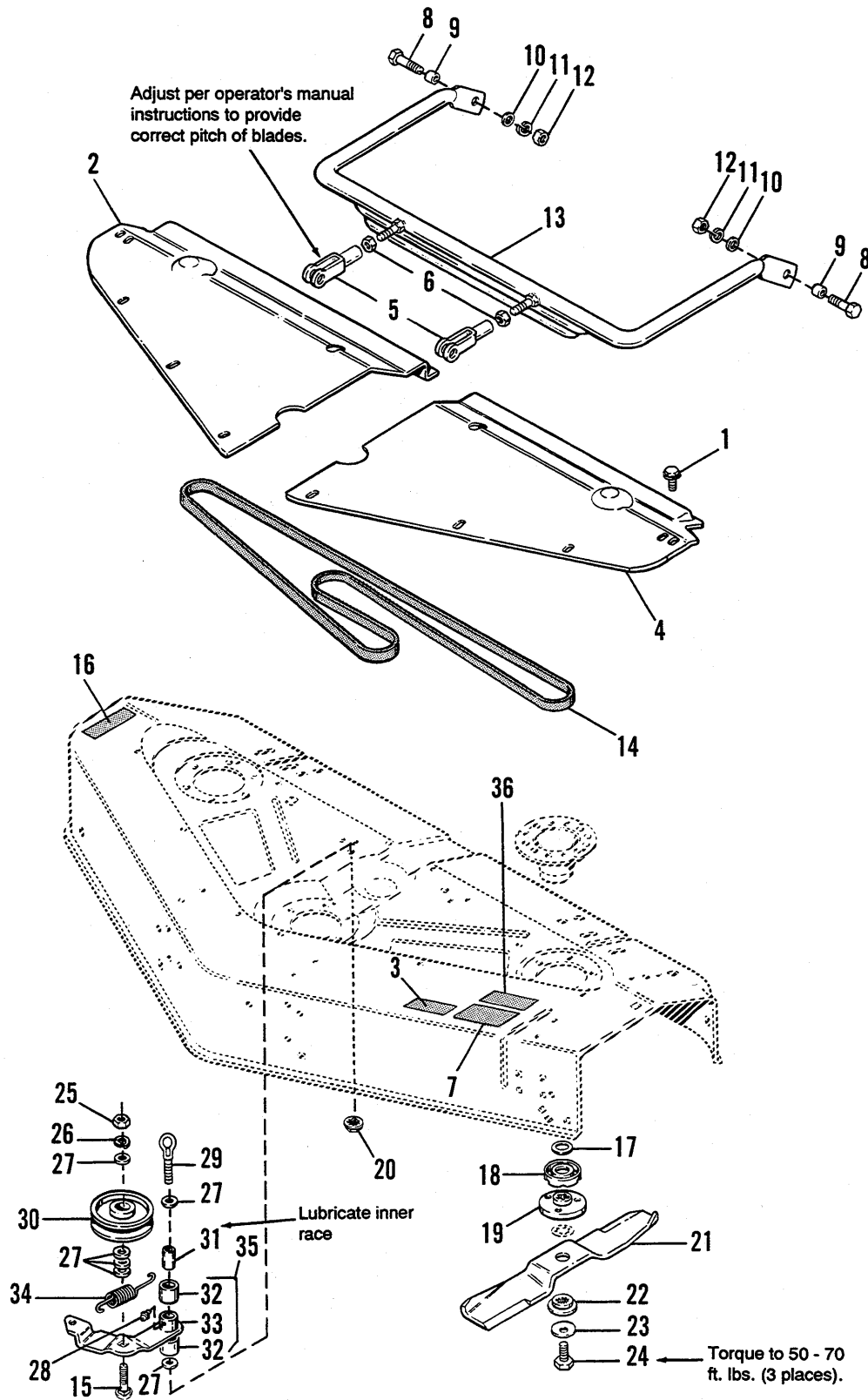
SAFETY DECALS



Ref. No. 11

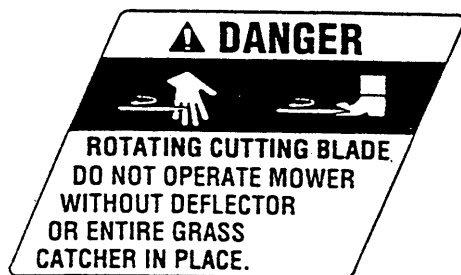


Ref. No. 14

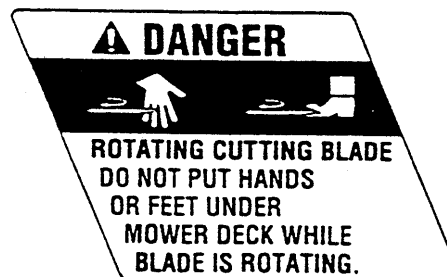


Ref. No.	Part No.	Qty.	Description
1	1929000	14	SCREW, Hex, Taptite, 1/4-20 x 3/8
2	1679957	1	COVER, R.H. (Orange)
	61679957	1	COVER, R.H. (Black)
3	1709067	1	DECAL, Belt Installation, Adjustment
4	1676067	1	COVER, L.H. (Orange)
	61676067	1	COVER, L.H. (Black)
5	154304	2	YOKE
6	1919262	2	NUT, Hex, Jam, 1/2-20
7	1704277	1	DECAL, Danger, Deflector in place
8	1921176	2	CAPSCREW, Hex Hd., 1/2-13 x 1-1/4
9	105051	2	SPACER
10	1924361	2	WASHER, Plain, 7/16
11	1916966	2	LOCKWASHER, 1/2
12	1916951	2	NUT, Hex, Full, 1/2-13
13	172473	1	BAIL ASSY.
14	1657044	1	V-BELT, Arbor Drive
15	1960268	1	CARRIAGE BOLT 3/8-16 x 1-1/4
16	1704276	1	DECAL, Danger, Rotating Blade
17	1700230	3	WASHER, Shim
18	1700229	3	SHIELD, Grass
19	1655777	3	ADAPTER, Blade
20	1928352	1	NUT, Hex, Flange Whizlock, 3/8-16
21	1679916	3	BLADE, 48" Mower
22	1679711	3	WASHER, Spline
23	1656916	3	WASHER, Spring
24	1923491	3	CAPSCREW, Hex Hd., 7/16-14 x 1
25	1917421	1	NUT, Hex, Jam, 3/8-16
26	1916965	1	LOCKWASHER, 3/8
27	1924940	5	WASHER, Plain, 13/32
28	912808	1	FITTING, Grease, 1/4 - 28
29	171815	1	EYEBOLT
30	1704926	1	PULLEY ASSY., Idler
31	1674669	1	SPACER
32	1676148	2	BUSHING
33		1	LEVER ASSY., Idler (Order Ref. No. 35)
34	1656936	1	SPRING
35	1704659	1	LEVER ASSY., Idler (Incl. Ref. Nos. 32 & 33)
36	1704384	1	DECAL, Cutting Width, 48"

SAFETY DECALS



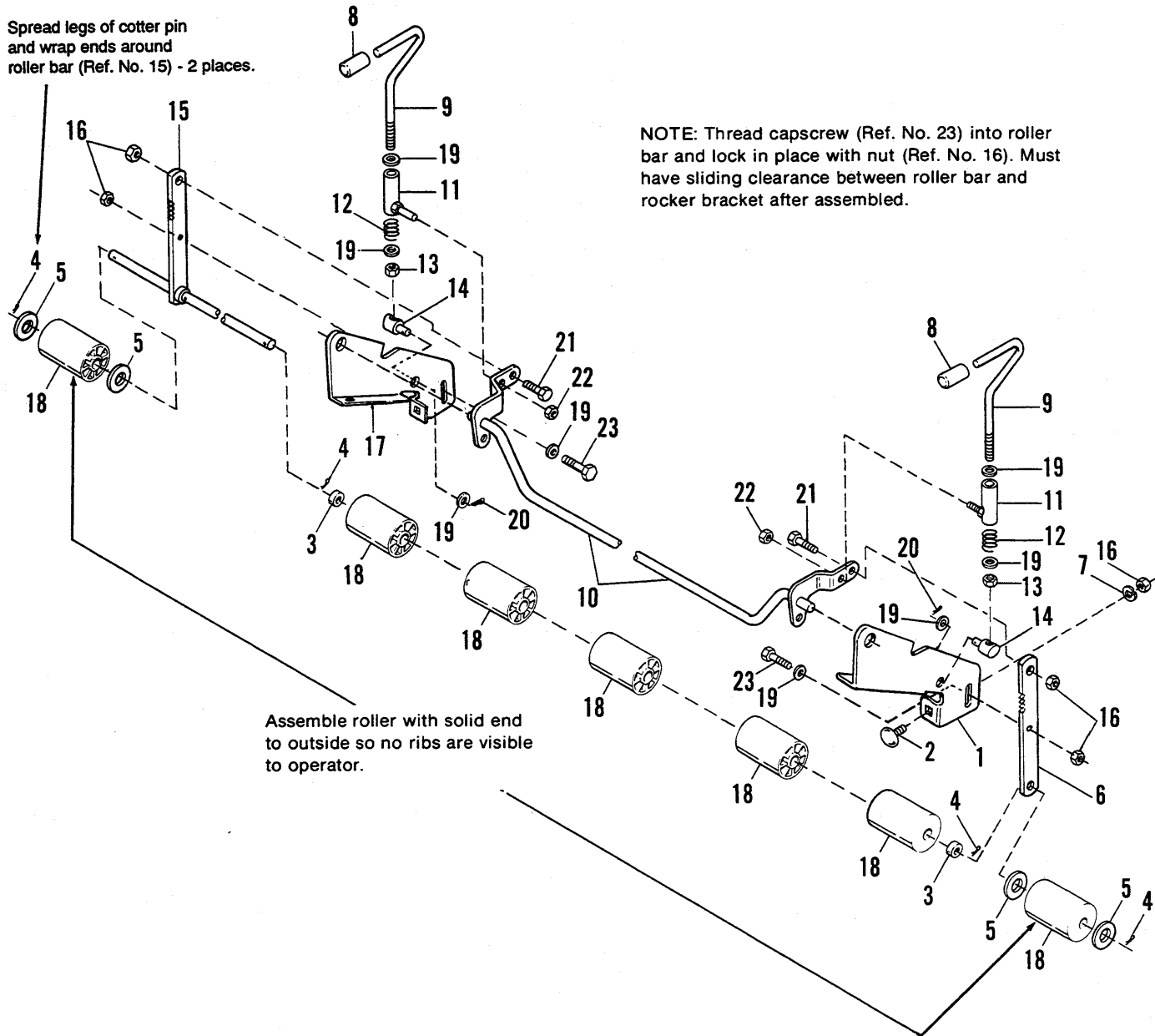
Ref. No. 7



Ref. No. 16

Spread legs of cotter pin and wrap ends around roller bar (Ref. No. 15) - 2 places.

NOTE: Thread capscrew (Ref. No. 23) into roller bar and lock in place with nut (Ref. No. 16). Must have sliding clearance between roller bar and rocker bracket after assembled.

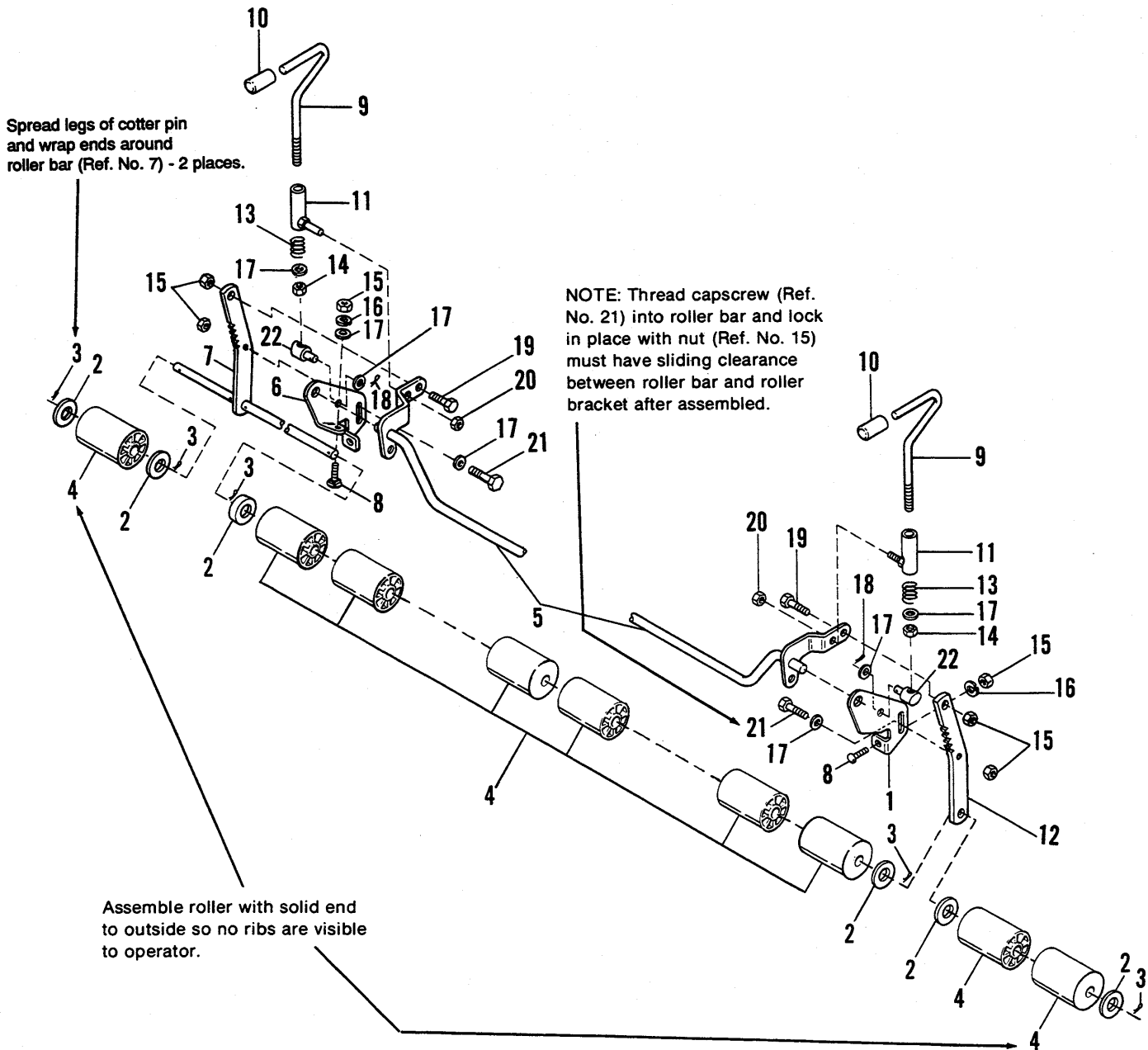


NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Mfg. No. 1691218, 1691220

42" Mower Deck - Height Adjusting & Roller Group

Ref. No.	Part No.	Qty.	Description
1	172044	1	BRACKET, Roller, L.H.
2	1931350	4	CARRIAGE BOLT, 3/8-16 x 1
3	172914	2	SPACER
4	1918458	4	PIN, Cotter, 3/16 x 1
5	1960020	4	WASHER, Plain, 5/8
6	1657893	1	BAR, Roller
7	1916965	4	LOCKWASHER, 3/8
8	1651820	2	GRIP
9	1650394	2	HANDLE, Adjusting
10	1651514	1	ROCKER ARM ASSY.
11	108241	2	SOCKET ASSY.
12	108360	2	SPRING
13	1917421	2	NUT, Hex, Jam, 3/8-16
14	108512	2	PIVOT
15	1657894	1	SHAFT ASSY., Roller
16	1916950	8	NUT, Hex, Full, 3/8-16
17	172045	1	BRACKET, Roller, R.H.
18	1668513	7	ROLLER
19	1924940	8	WASHER, Plain, 13/32 I.D.
20	1918447	2	PIN, Cotter, 3/32 x 3/4
21	1921210	2	CAPSCREW, Hex Hd., 3/8-16 x 1
22	1930651	2	LOCKNUT, Hex, Full, 3/8-16
23	1921968	2	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4



NOTE: Use standard hardware torque spec. chart unless otherwise noted.

Mfg. No. 1691219, 1691221

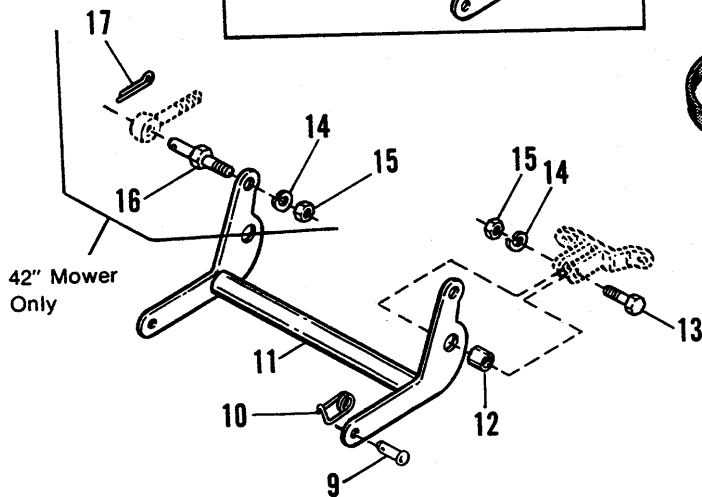
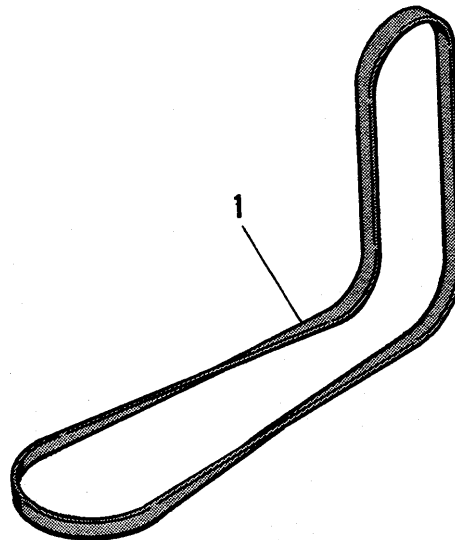
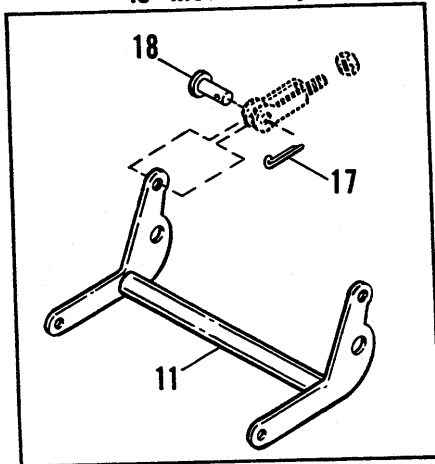
48" Mower Deck - Height Adjusting & Roller Group

Ref. No.	Part No.	Qty.	Description
1	172046	1	BRACKET, Roller, L.H.
2	1960020	6	WASHER, Plain, 5/8
3	1918458	4	PIN, Cotter, 3/16 x 1
4	1668513	9	ROLLER
5	172015	1	ROCKER ARM ASSY.
6	172047	1	BRACKET, Roller, R.H.
7	1668541	1	SHAFT ASSY., Roller
8	1931350	4	CARRIAGE BOLT, 3/8-16 x 1
9	1650394	2	HANDLE, Adjusting
10	1651820	2	GRIP
11	108241	2	SOCKET ASSY.
12	1657891	1	BAR, Roller
13	108360	2	SPRING
14	1917421	2	NUT, Hex, Jam, 3/8-16
15	1916950	8	NUT, Hex, Full, 3/8-16
16	1916965	4	LOCKWASHER, 3/8
17	1924940	7	WASHER, 3/8
18	1918447	2	PIN, Cotter, 3/32 x 3/4
19	1921210	2	CAPSCREW, Hex Hd., 3/8-16 x 1
20	1930651	2	LOCKNUT, Hex, Full, 3/8-16
21	1921968	2	CAPSCREW, Hex Hd., 3/8-16 x 1-1/4
22	108512	2	PIVOT

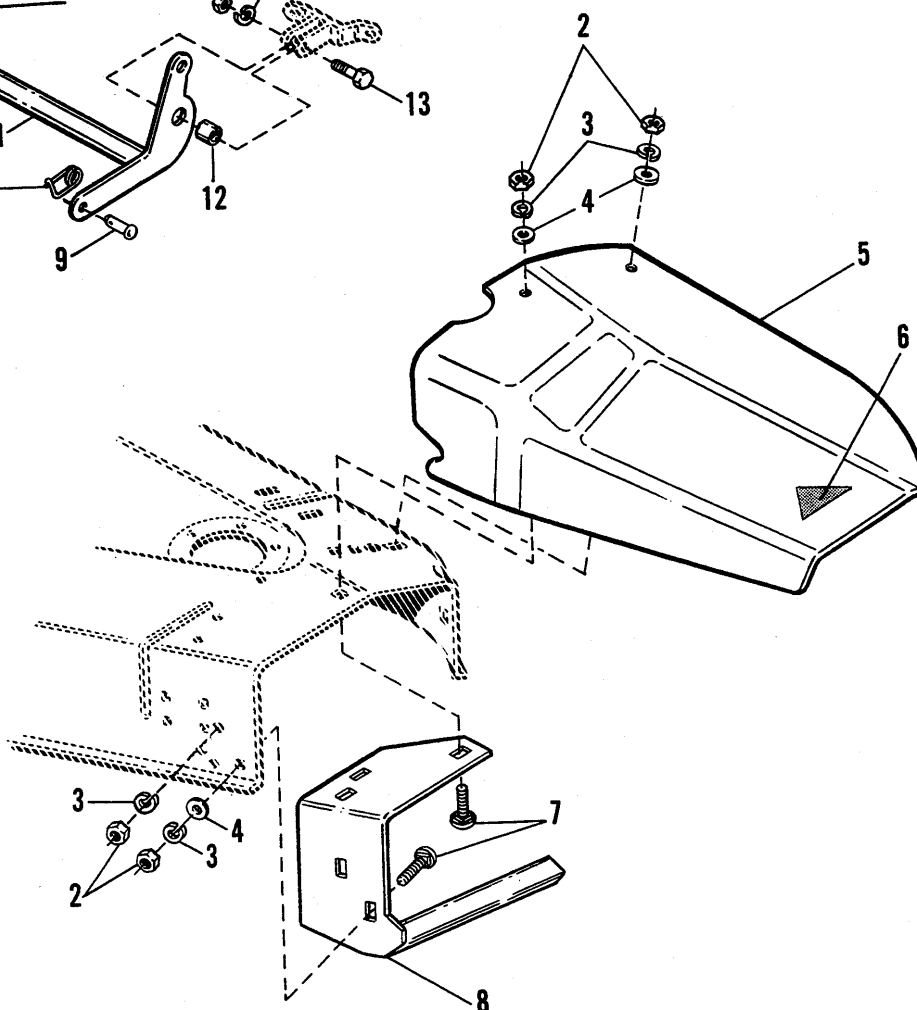
42" & 48" Mower Deck - Deflector, Stone Guard & Arm Assy. Group

**1561

48" Mower Only



42" Mower
Only

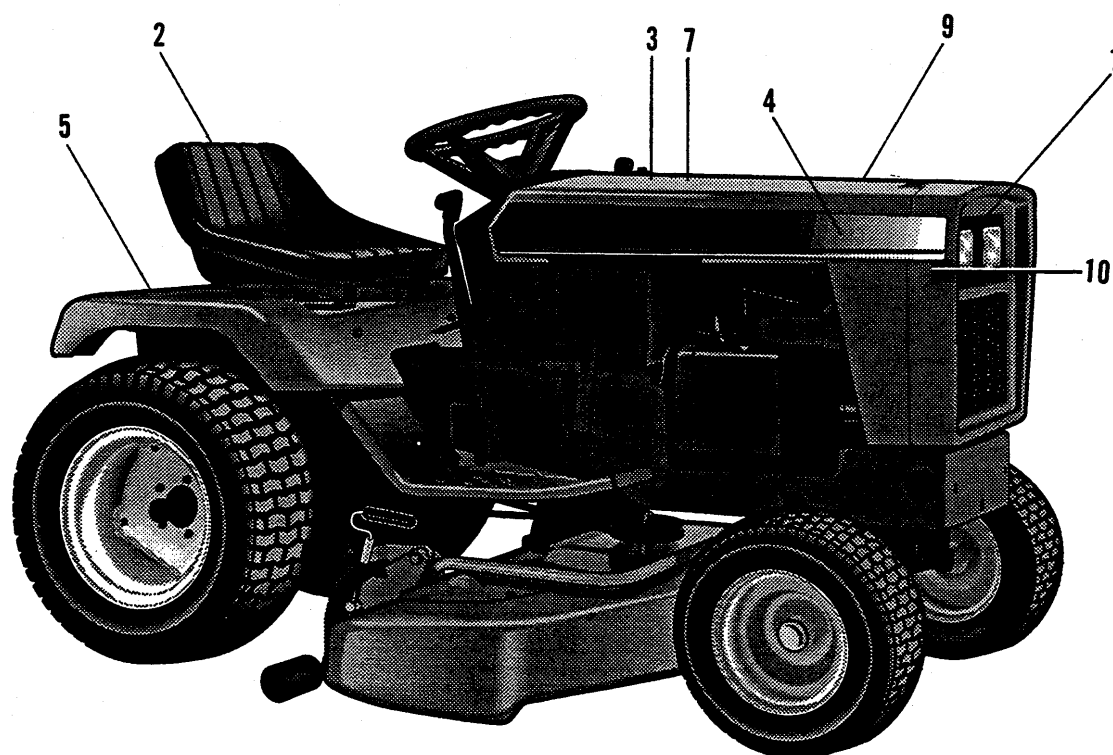


NOTE: Use standard hardware
torque spec. chart unless
otherwise noted.

Mfg. Nos. 1691218, 1691219, 1691220, 1691221

42" & 48" Mower Deck - Deflector, Stone Guard & Arm Assy. Group

Ref. No.	Part No.	Qty.	Description
1	1666801	1	V-BELT, PTO to Mower, 42" Mower
	1713515	1	V-BELT, PTO to Mower, 48" Mower
2	1916950	4	NUT, Hex, 3/8-16
3	1916965	4	LOCKWASHER, 3/8
4	1924356	3	WASHER, Special
5	1651177	1	DEFLECTOR, 42" Mower (Orange)
	61651177	1	DEFLECTOR, 42" Mower (Black)
	1651184	1	DEFLECTOR, 48" Mower (Orange)
	61651184	1	DEFLECTOR, 48" Mower (Black)
6		1	DECAL, OPEI (Not Serviced)
7	1960268	4	CARRIAGE BOLT, 3/8-16 x 1-1/4
8	174167	1	GUARD ASSY., Stone, 42" Mower
	174127	1	GUARD ASSY., Stone, 48" Mower
9	156306	2	PIN
10	176012	2	PIN, Clip
11	172468	1	ROCKER ARM ASSY.
12	105051	2	SPACER
13	1921176	2	CAPSCREW, Hex Hd., 1/2-13 x 1-1/4
14	1916966	4	LOCKWASHER, 1/2 (Qty. 2 on 48" Mower)
15	1913744	4	NUT, Hex, Jam, 1/2-13 (Qty. 2 on 48" Mower)
16	1651516	2	PIN, Pivot (42" Mower Only)
17	1918452	2	PIN, Cotter, 1/8 x 1
18	1960116	2	PIN, Yoke, (48" Mower Only)



! WARNING

DISCONNECT GROUND (-)
TERMINAL WHEN WORKING
ON ELECTRICAL SYSTEM TO
PREVENT SHORT CIRCUIT

1676933

SAFETY DECALS

! WARNING

TO AVOID INJURY DO NOT RUN
ENGINE WITH SEAT DECK RAISED

1676934

Mfg. No. 1692143

Decal Group - Simplicity Sovereign Series

Ref. No.	Part No.	Qty.	Description
1	1708810	1	DECAL, Grille
2	1708927	1	DECAL, Logo, USA
3	1713543	1	DECAL, Drive Belts & Mower Blades
4	1708607	1	DECAL Hood Stripe,RH
5	1668202	1	DECAL, Logo, Simplicity
6	1708283	1	DECAL, Console, Hydro
7	1709061	1	DECAL, Touch-up Paint
8	1668328	1	DECAL, Dash
9	1708606	1	DECAL, Hood Stripe LH

Not Indexed

1667175	1	DECAL, Adjustment, Mower Belt (Located on mower deck)
1679675	1	DECAL, Caution (Located under hood on right side of dash)
1676933	1	DECAL, Warning (Located under seat deck)

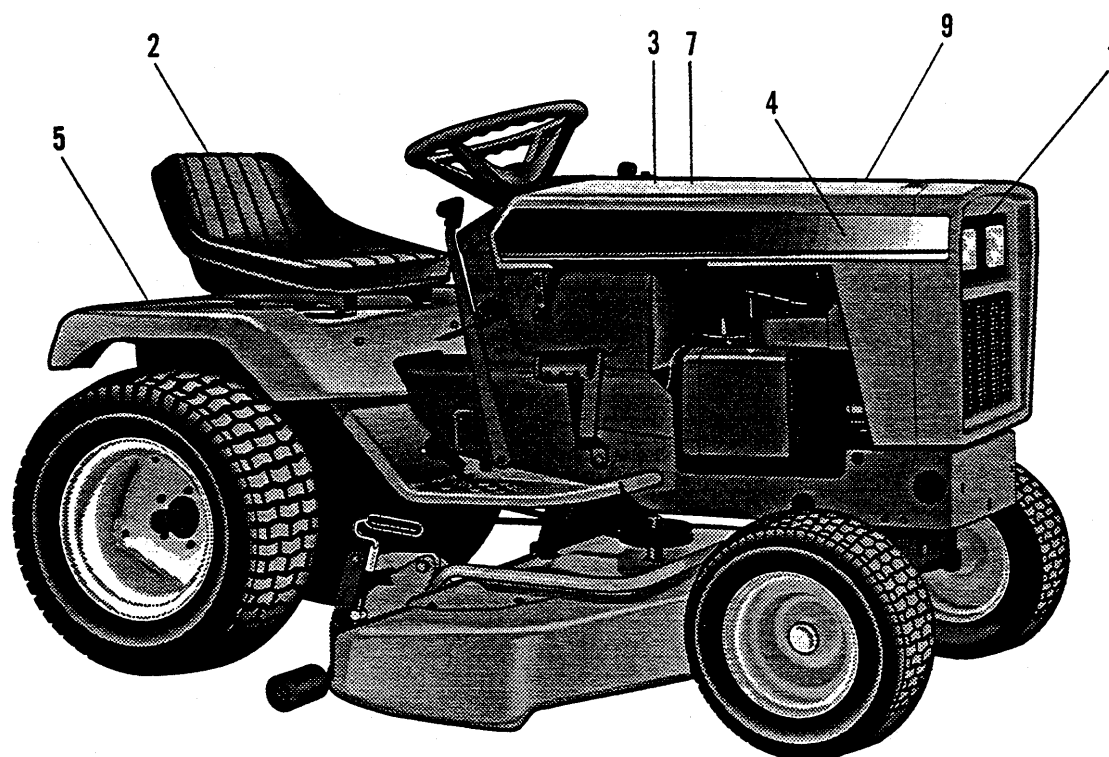
Mfg. No. 1692450

Decal Group - Simplicity Sovereign Series

Ref. No.	Part No.	Qty.	Description
1	1708810	1	DECAL, Grille
2	1708927	1	DECAL, Logo, USA
3	1713543	1	DECAL, Drive Belts & Mower Blades
4	1713981	1	DECAL Hood,Simplicity, RH
5	1668202	1	DECAL, Logo, Simplicity
6	1708283	1	DECAL, Console, Hydro
7	1709061	1	DECAL, Touch-up Paint
8	1668328	1	DECAL, Dash
9	1713980	1	DECAL, Hood, Simplicity, LH
10	1713978	2	DECAL, Hydro V-Twin

Not Indexed

1667175	1	DECAL, Adjustment, Mower Belt (Located on mower deck)
1679675	1	DECAL, Caution (Located under hood on right side of dash)
1676933	1	DECAL, Warning (Located under seat deck)



WARNING

DISCONNECT GROUND (-)
TERMINAL WHEN WORKING
ON ELECTRICAL SYSTEM TO
PREVENT SHORT CIRCUIT

1676933

SAFETY DECALS



WARNING

TO AVOID INJURY DO NOT RUN
ENGINE WITH SEAT DECK RAISED

1676934

Mfg. No. 1692144, 1692452

Decal Group - AGCO Allis 900 Series

Ref. No.	Part No.	Qty.	Description
1	1708810	1	DECAL, Grille
2	1708927	1	DECAL, Logo, USA
3	1713543	1	DECAL, Drive Belts & Mower Blades
4	1708808	1	DECAL Hood Stripe,RH
5	1708926	1	DECAL, Logo, AGCO Allis
6	1708283	1	DECAL, Console, Hydro
7	1709061	1	DECAL, Touch-up Paint
8	1668328	1	DECAL, Dash
9	1708807	1	DECAL, Hood Stripe LH
Not Indexed			
	1667175	1	DECAL, Adjustment, Mower Belt (Located on mower deck)
	1679675	1	DECAL, Caution (Located under hood on right side of dash)
	1676933	1	DECAL, Warning (Located under seat deck)

Mfg. No. 1692503

Decal Group - Massey Ferguson 2800 Series

Ref. No.	Part No.	Qty.	Description
1	1708810	1	DECAL, Grille
2	1708927	1	DECAL, Logo, USA
3	1713543	1	DECAL, Drive Belts & Mower Blades
4	1714379	1	DECAL Hood Stripe,RH
5	1714363	1	DECAL, Logo, Massey Ferguson
6	1708283	1	DECAL, Console, Hydro
7	1709061	1	DECAL, Touch-up Paint
8	1668328	1	DECAL, Dash
9	1714378	1	DECAL, Hood Stripe LH
Not Indexed			
	1667175	1	DECAL, Adjustment, Mower Belt (Located on mower deck)
	1679675	1	DECAL, Caution (Located under hood on right side of dash)
	1676933	1	DECAL, Warning (Located under seat deck)

INDEX

Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.
101025	8-43	157077	3-43	166126	28-13	172264	17-11
103280	18-43	157081	10-31	166130	21-13	172353	5-51
105051	1-9	157120	9-39	166156	23-13	172353	4-51
105051	9-59	157127	32-13	166157	15-13	172434	24-41
105051	12-65	157127	15-15	166173	3-15	172436	25-41
108186	26-31	157127	21-27	166176	14-13	172468	11-65
108186	30-55	157215	9-57	166206	5-37	172473	13-59
108202	7-55	157273	28-27	168025	34-23	172725	11-31
108219	34-55	157300	25-5	170168	14-7	172744	4-11
108224	21-55	157424	20-11	170975	14-5	172750	23-35
108241	11-61	157427	6-7	170987	4-9	172752	29-35
108241	11-63	157427	16-11	170988	5-9	172753	30-35
108360	12-61	157494	25-7	170992	6-9	172899	41-25
108360	13-63	157499	2-7	170998	7-7	172914	3-61
108366	33-55	157618	22-7	171000	7-9	173026	39-11
108426	17-55	157624	17-5	171101	30-31	173430	2-51
108454	17-55	157625	29-5	171225	15-41	173432	1-51
108512	14-61	157638	5-51	171252	3-11	173957	2-29
108512	22-63	158196	13-13	171330	5-11	173991	17-27
108717	4-57	158544	30-5	171371	5-29	174127	8-65
118117	21-35	158544	32-31	171375	13-7	174130	4-33
121037	7-15	158574	2-39	171376	1-51	174131	1-33
121083	3-39	159107	19-43	171377	2-51	174133	2-33
121190	4-39	162085	1-39	171517	6-39	174134	3-33
122023	27-41	164029	13-49	171600	6-45	174137	11-33
122184	14-41	164029	13-47	171690	5-31	174143	9-33
153010	16-17	164155	4-27	171772	9-29	174167	8-65
153068	22-39	164217	13-39	171774	12-7	174662	6-5
154040	24-35	164247	6-51	171790	6-35	174723	9-31
154065	18-39	164272	30-7	171791	7-35	174862	13-29
154096	15-5	165073	43-41	171792	5-35	174896	8-23
154096	21-25	166003	25-17	171796	20-35	176012	10-65
154097	11-25	166004	36-25	171815	27-57	176111	35-35
154177	5-7	166012	17-25	171815	29-59	176236	16-25
154258	2-9	166014	31-25	171853	12-39	176243	34-25
154264	3-9	166017	14-25	171854	25-39	176440	26-11
154268	25-25	166018	28-25	171994	10-15	176945	23-39
154269	6-25	166019	27-25	172008	2-43	176980	35-25
154271	37-25	166021	26-25	172015	5-63	177041	10-39
154279	22-35	166022	7-17	172038	6-43	177447	21-43
154282	12-35	166040	46-25	172044	1-61	177522	14-27
154289	9-7	166041	12-25	172045	17-61	177522	19-41
154291	8-39	166043	18-25	172046	1-63	177649	28-35
154304	5-59	166072	3-37	172047	6-63	177900	17-39
154369	31-13	166074	8-37	172108	11-15	178104	13-35
154393	3-51	166075	10-37	172175	23-41	178105	31-35
154486	15-7	166110	4-37	172206	7-29	178779	2-17
154487	18-7	166119	3-13	172206	19-35	901480	44-25
156306	9-65	166122	5-15	172256	11-35	901489	30-11

INDEX

No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.
901493	39-25	1608759	9-37	1652186	17-19	1657528	15-55
901652	5-25	1612093	9-19	1652189	23-19	1657891	12-63
901677	43-25	1650254	11-29	1652192	3-19	1657893	6-61
901825	42-25	1650304	12-29	1652194	4-19	1657894	15-61
905123	30-13	1650347	24-23	1652196	44-21	1657969	5-55
905123	11-19	1650358	32-23	1652197	46-21	1663111	9-35
905123	14-29	1650360	37-23	1652203	40-21	1663114	26-5
905123	17-35	1650392	6-23	1652204	39-21	1663114	35-23
910224	8-9	1650394	9-61	1652207	36-19	1664204	13-23
912808	9-9	1650394	9-63	1652212	35-19	1664460	8-11
912808	22-25	1650401	18-23	1652213	51-21	1664518	6-11
912808	33-57	1650414	3-35	1652214	31-19	1664847	23-17
912808	28-59	1650427	23-25	1652216	30-19	1664847	14-55
915019	24-39	1650429	7-25	1652217	28-19	1664987	15-33
916937	10-23	1650502	4-15	1652219	27-19	1665238	33-41
919180	20-23	1650506	3-23	1652220	26-19	1665251	33-23
919766	4-31	1650519	*-39	1652221	25-19	1665257	36-23
920036	1-29	1650524	12-17	1652222	24-19	1665440	10-27
920470	8-5	1650531	6-15	1652223	21-19	1665908	11-5
921133	27-5	1650553	19-7	1652224	22-19	1665909	12-5
921133	10-7	1650592	5-23	1652226	16-19	1666148	7-45
921133	27-31	1650621	15-23	1652228	13-19	1666163	2-45
921133	29-19	1650633	9-17	1652229	12-19	1666204	11-9
923905	40-31	1650651	4-13	1652231	10-19	1666294	9-27
923905	14-33	1650712	28-23	1652234	6-19	1666415	22-17
927793	10-9	1650713	23-23	1652235	5-19	1666648	1-7
927794	27-7	1650715	29-23	1652251	7-19	1666703	17-43
927794	23-11	1650775	30-25	1652253	53-21	1666737	15-49
927794	12-23	1650872	14-23	1652254	48-21	1666737	15-47
928812	7-31	1650874	4-23	1652469	10-25	1666744	12-49
930671	21-39	1650906	6-29	1653120	19-25	1666744	12-47
930709	20-17	1651000	4-43	1653876	19-5	1666781	16-29
932747	40-41	1651078	32-25	1654930	7-11	1666786	1-27
934683	42-41	1651089	14-17	1655729	6-55	1666801	1-65
935046	2-31	1651090	15-17	1655777	18-57	1667171	3-25
960169	7-39	1651177	5-65	1655777	19-59	1667175	*-67
960171	9-43	1651184	5-65	1656004	55-21	1667175	*-69
960183	33-25	1651514	10-61	1656005	56-21	1667261	37-31
960187	29-25	1651516	16-65	1656006	57-21	1667269	34-31
960190	11-39	1651520	7-57	1656007	58-21	1667270	17-31
960477	29-11	1651703	24-17	1656009	59-21	1667271	16-5
1603189	8-41	1651820	8-61	1656877	32-35	1667346	40-25
1605965	4-51	1651820	10-63	1656916	22-57	1667408	1-31
1605967	3-51	1652044	7-33	1656916	23-59	1667410	6-33
1606554	25-27	1652045	16-33	1656936	31-57	1667435	38-31
1606823	11-49	1652181	1-19	1656936	34-59	1667437	19-31
1606823	11-47	1652183	19-19	1656960	15-57	1667773	32-19
1607870	6-49	1652184	18-19	1657044	14-59	1667774	33-19
1607870	6-47	1652185	8-19	1657323	29-13	1667811	8-27

INDEX

Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.
1667812	19-13	1674774	27-55	1700229	18-59	1708761	31-11
1667812	12-27	1675587	27-55	1700230	16-57	1708763	14-11
1667822	10-33	1675789	20-31	1700230	17-59	1708764	13-11
1667823	13-33	1675932	11-45	1701229	48-41	1708807	9-69
1667824	12-33	1676067	4-59	1701559	19-49	1708808	4-69
1667825	8-33	1676095	13-57	1701559	19-47	1708810	1-67
1668021	17-33	1676096	12-57	1703273	9-55	1708810	1-69
1668202	5-67	1676148	29-57	1703805	26-27	1708873	2-11
1668328	8-67	1676148	32-59	1704276	14-57	1708926	5-69
1668328	8-69	1676277	13-55	1704276	16-59	1708927	2-67
1668419	13-15	1676278	37-55	1704277	11-57	1708927	2-69
1668513	18-55	1676861	10-11	1704277	7-59	1709060	14-43
1668513	18-61	1676933	*-67	1704314	40-55	1709061	7-67
1668513	4-63	1676933	*-69	1704383	34-57	1709061	7-69
1668541	7-63	1677368	32-41	1704384	36-59	1709067	10-57
1668625	12-9	1677369	30-41	1704402	23-49	1709067	3-59
1668637	24-11	1677370	36-41	1704402	23-47	1709322	27-17
1668737	11-13	1677371	44-41	1704505	27-27	1709322	49-21
1668737	17-15	1679142	5-33	1704659	32-57	1709359	35-41
1668882	22-31	1679157	4-55	1704659	35-59	1709959	4-51
1668883	21-31	1679158	4-55	1704724	10-49	1709959	4-53
1670857	13-25	1679161	12-55	1704724	10-47	1709967	1-57
1670864	20-25	1679194	8-55	1704728	20-49	1709968	2-57
1671228	21-17	1679195	36-55	1704728	20-47	1709969	3-51
1671229	19-17	1679322	1-47	1704926	26-13	1709969	3-53
1671323	19-27	1679334	7-49	1704926	26-57	1709970	1-53
1671339	8-29	1679334	7-47	1704926	30-59	1709971	2-53
1671424	3-27	1679354	8-13	1707335	39-55	1712286	38-11
1671582	8-17	1679675	*-67	1707459	25-49	1713059	1-51
1671665	43-21	1679675	*-69	1707459	25-47	1713060	1-53
1671667	16-35	1679711	21-57	1707511	22-47	1713176	2-51
1671699	45-21	1679711	22-59	1707571	24-49	1713177	2-53
1673452	24-25	1679916	21-59	1707571	24-47	1713515	2-65
1673453	38-25	1679917	20-57	1707755	29-41	1713543	3-67
1673532	15-19	1679957	2-59	1708007	24-31	1713543	3-69
1673533	14-19	1685054	18-35	1708009	29-31	1713840	1-49
1673534	2-19	1685058	1-41	1708283	6-67	1713843	15-27
1673534	60-21	1685088	8-35	1708283	6-69	1713844	6-43
1673535	20-19	1685088	10-35	1708298	30-23	1713847	40-23
1673537	50-21	1685128	34-19	1708298	12-31	1713847	15-31
1673537	61-21	1685198	*-25	1708405	1-11	1713848	7-43
1673538	54-21	1685281	35-55	1708522	37-11	1713854	16-27
1673698	2-41	1685282	35-55	1708606	9-67	1713978	10-67
1673700	36-31	1685290	37-41	1708607	4-67	1713980	9-67
1674137	28-5	1685347	6-31	1708729	22-11	1713981	4-67
1674358	26-41	1685408	11-43	1708730	3-41	1714054	10-47
1674363	28-41	1686637	9-41	1708734	17-41	1714055	11-47
1674669	28-57	1686648	*-27	1708749	1-45	1714097	14-9
1674669	31-59	1700229	17-57	1708757	1-5	1714167	22-49

INDEX

No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.
1714363	5-69	1917356	5-17	1919262	6-59	1921968	21-63
1714378	9-69	1917356	17-23	1919326	4-17	1921971	33-11
1714379	4-69	1917356	2-25	1919326	18-49	1921971	5-13
1714440	15-9	1917356	4-29	1919326	18-47	1921972	25-11
1714483	26-49	1917356	25-35	1919381	14-15	1921972	35-11
1714494	27-49	1917356	4-41	1919438	38-41	1921972	5-39
1714647	16-41	1917356	9-49	1919438	28-49	1921977	21-5
1913744	29-7	1917356	26-55	1919439	1-13	1921978	45-25
1913744	11-23	1917356	9-47	1919439	26-23	1922130	25-13
1913744	15-65	1917372	13-5	1919439	31-31	1922133	15-29
1916622	9-23	1917372	1-15	1920263	5-41	1922133	4-35
1916622	28-31	1917372	6-17	1920328	20-9	1922611	33-13
1916622	15-39	1917372	16-23	1920415	21-9	1922711	46-41
1916622	6-41	1917372	1-25	1920415	21-11	1922755	25-23
1916622	11-55	1917372	22-27	1920415	52-21	1923027	1-37
1916950	22-5	1917372	8-49	1920415	1-23	1923341	34-41
1916950	18-11	1917372	25-55	1920415	2-49	1923358	9-15
1916950	2-13	1917372	8-47	1920415	2-47	1923358	22-23
1916950	23-27	1917415	45-41	1920676	27-11	1923362	20-13
1916950	22-55	1917421	24-57	1920676	33-35	1923362	8-15
1916950	6-57	1917421	25-59	1920676	47-41	1923362	17-17
1916950	16-61	1917421	13-61	1920677	1-35	1923362	5-27
1916950	15-63	1917421	14-63	1920677	6-37	1923471	1-55
1916950	2-65	1917867	5-43	1921176	8-59	1923491	23-57
1916951	16-9	1918196	13-31	1921176	13-65	1923491	24-59
1916951	12-59	1918199	3-5	1921210	3-7	1923683	16-31
1916964	7-23	1918199	28-11	1921210	22-9	1923701	36-11
1916964	23-31	1918199	17-13	1921210	9-45	1923701	47-21
1916964	34-35	1918199	42-21	1921210	2-57	1923701	2-27
1916964	16-39	1918199	2-35	1921210	21-61	1923701	16-49
1916964	7-41	1918199	2-37	1921210	19-63	1923701	16-47
1916964	10-55	1918199	39-41	1921212	2-5	1923735	1-17
1916965	23-5	1918199	2-55	1921314	16-15	1924058	6-27
1916965	17-9	1918213	22-13	1921319	2-23	1924356	4-65
1916965	19-11	1918213	14-35	1921319	41-41	1924361	10-59
1916965	6-13	1918213	11-37	1921319	31-55	1924856	34-11
1916965	10-17	1918431	23-7	1921332	5-5	1924940	4-7
1916965	24-27	1918431	19-9	1921332	3-17	1924940	25-9
1916965	23-55	1918447	31-23	1921332	17-49	1924940	32-11
1916965	5-57	1918447	3-31	1921332	17-47	1924940	18-13
1916965	26-59	1918447	20-61	1921333	13-17	1924940	34-13
1916965	7-61	1918447	18-63	1921333	4-25	1924940	21-23
1916965	16-63	1918452	17-65	1921959	15-35	1924940	11-27
1916965	3-65	1918458	20-55	1921959	26-39	1924940	33-31
1916966	18-9	1918458	4-61	1921959	28-55	1924940	38-55
1916966	11-59	1918458	3-63	1921961	27-23	1924940	3-57
1916966	14-65	1918459	17-29	1921961	25-31	1924940	27-59
1917328	24-5	1919262	31-7	1921963	18-31	1924940	19-61
1917356	4-5	1919262	8-57	1921968	23-61	1924940	17-63

INDEX

Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.	Part No.	Ref. No. & Page No.
1925125	12-11	1930651	10-45	1960268	7-65		
1925125	27-13	1930651	3-49	1960294	41-31		
1925125	18-41	1930651	22-61	1960433	31-41		
1925205	26-35	1930651	20-63	1960475	15-11		
1925205	14-49	1930651	3-47	1960517	8-45		
1925205	14-47	1930665	20-43	1960540	27-9		
1925592	29-55	1931333	7-5	1960547	12-41		
1925695	11-17	1931333	23-43	1961022	27-35		
1926025	1-43	1931333	29-49	8021010	17-7		
1926035	24-13	1931333	16-55	8021010	28-9		
1926110	7-37	1931337	21-49	8061012	26-7		
1926192	21-41	1931337	21-47	8261100	6-51		
1926771	12-15	1931350	24-55	61651177	5-65		
1927428	28-17	1931350	2-61	61651184	5-65		
1927469	24-7	1931350	8-63	61676067	4-59		
1927531	41-21	1931353	7-27	61676095	13-57		
1927609	9-25	1931648	38-23	61676096	12-57		
1928295	16-13	1932771	22-41	61679957	3-59		
1928352	20-5	1932849	8-25	61685281	35-55		
1928352	25-57	1933263	3-55	61685282	35-55		
1928352	20-59	1933468	26-17				
1928691	16-7	1933468	4-49				
1928703	13-43	1933468	4-47				
1928721	10-5	1933989	22-43				
1928721	20-7	1934665	30-49				
1928721	2-15	1960020	10-29				
1928721	19-39	1960020	19-55				
1928727	18-5	1960020	5-61				
1928731	24-9	1960020	2-63				
1928731	8-31	1960032	35-31				
1928734	9-5	1960033	39-31				
1928734	25-9	1960072	20-27				
1928919	16-43	1960085	19-23				
1929000	1-57	1960086	3-29				
1929000	1-59	1960096	5-45				
1930245	21-7	1960103	18-17				
1930531	10-43	1960106	39-23				
1930531	3-45	1960106	14-31				
1930561	12-43	1960112	9-11				
1930627	4-45	1960114	8-7				
1930647	13-27	1960116	18-65				
1930647	20-41	1960153	20-39				
1930648	28-7	1960184	15-25				
1930650	26-9	1960201	5-49				
1930650	7-13	1960201	5-47				
1930651	11-7	1960251	12-13				
1930651	18-27	1960268	32-55				
1930651	14-39	1960268	19-57				
1930651	15-43	1960268	15-59				

Hardware Identification & Torque Specifications

Common Hardware Types

Hex Head Capscrew



Washer



Lockwasher

Carriage Bolt



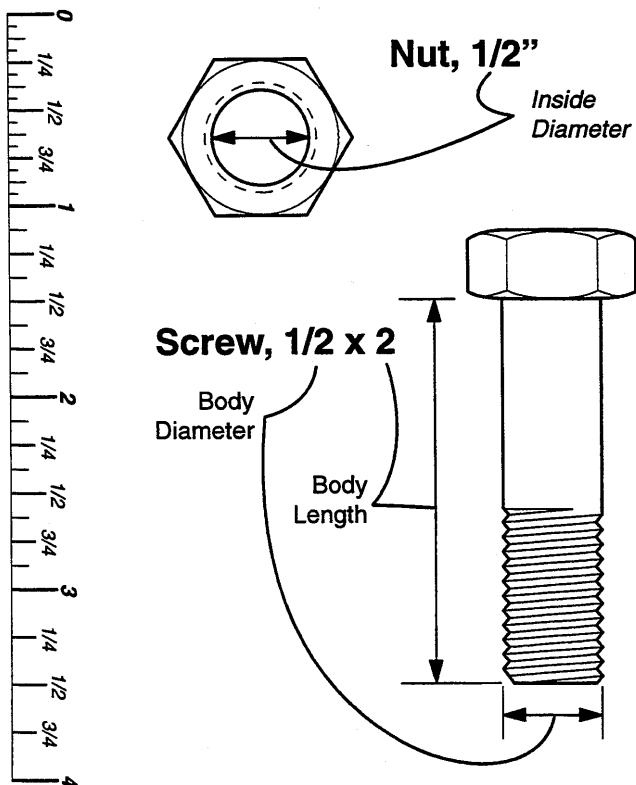
Hex Nut

Standard Hardware Sizing

When a washer or nut is identified as **1/2"**, this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch; if a second number is present it represents the *threads per inch*

When bolt or capscrew is identified as **1/2 - 16 x 2"**, this means the *Nominal size*, or *body diameter* is 1/2 inch; the second number represents the *threads per inch* (16 in this example, and the final number is the *body length* of the bolt or screw (in this example 2 inches long).

The guides and ruler furnished below are designed to help you select the appropriate hardware and tools.



Torque Specification Chart

FOR STANDARD MACHINE HARDWARE (Tolerance $\pm 20\%$)

Hardware Grade	No Marks		SAE Grade 2		SAE Grade 5		SAE Grade 8	
	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
8-32	19	2.1	30	3.4	41	4.6		
8-36	20	2.3	31	3.5	43	4.9		
10-24	27	3.1	43	4.9	60	6.8		
10-32	31	3.5	49	5.5	68	7.7		
1/4-20	66	7.6	8	10.9	12	16.3		
1/4-28	76	8.6	10	13.6	14	19.0		
5/16-18	11	15.0	17	23.1	25	34.0		
5/16-24	12	16.3	19	25.8	27	34.0		
3/8-16	20	27.2	30	40.8	45	61.2		
3/8-24	23	31.3	35	47.6	50	68.0		
7/16-14	30	40.8	50	68.0	70	95.2		
7/16-20	35	47.6	55	74.8	80	108.8		
1/2-13	50	68.0	75	102.0	110	149.6		
1/2-20	55	74.8	90	122.4	120	163.2		
9/16-12	65	88.4	110	149.6	150	204.0		
9/16-18	75	102.0	120	163.2	170	231.2		
5/8-11	90	122.4	150	204.0	220	299.2		
5/8-18	100	136	180	244.8	240	326.4		
3/4-10	160	217.6	260	353.6	386	525.0		
3/4-16	180	244.8	300	408.0	420	571.2		
7/8-9	140	190.4	400	544.0	600	816.0		
7/8-14	155	210.8	440	598.4	660	897.6		
1-8	220	299.2	580	788.8	900	1,244.0		
1-12	240	326.4	640	870.4	1,000	1,360.0		

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

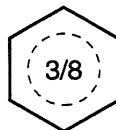
Wrench & Fastener Size Guide



1/4" Bolt or Nut
Wrench—7/16"



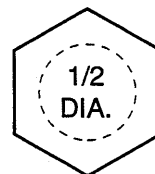
5/16" Bolt or Nut
Wrench—1/2"



3/8" Bolt or Nut
Wrench—9/16"



7/16" Bolt or Nut
Wrench (Bolt)—5/8"
Wrench (Nut)—11/16"



1/2" Bolt or Nut
Wrench—3/4"

NOTES



Simplicity

MANUFACTURING, INC.

500 N Spring Street / PO Box 997
Port Washington, WI 53074-0997 USA

© Copyright 1994 Simplicity Manufacturing, Inc.
All Rights Reserved. Printed In USA.

